Let's get a sense of the group here today…

I am at the workshop because:

1) I keep hearing about this "never event" thing
2) I struggle with preventing falls and pressure ulcer for my patients
3) I am involved in quality improvement, patient safety at my institution
4) I am involved specifically with fall prevention, pressure ulcer prevention at my institution
I care for patients at:
1) A small community hospital
2) A large community hospital with strong specialty support
3) A large academic medical center or community hospital where I frequently directly supervise medical trainees

At my hospital, I have the following resources to help prevent Falls, PUs:
1) Fall or PU committee that develops prevention programs, policies
2) Fall or PU clinical team that sees, assesses patients for prevention
3) Quality Improvement team that develops prevention programs, policies on Falls, PUs and many other problems
4) Geriatric Consult service helps with Fall, PU prevention
5) No specific individual or group working on Fall, PU prevention

At my hospital, the individuals working on Fall, PU prevention are:
1) Quality analysts
2) Nurses
3) Hospitalists
4) Geriatricians
5) Clinical Nurse Specialists
6) Hospital Administration
7) No specific individual or group working on Fall, PU prevention
AGENDA

• Background on Never Events, Falls and Pressure Ulcers (PU’s)
• Small Groups: Understanding the Problem
• UCSF Fall and PU Prevention Strategies
• Small Groups: Brainstorm Solutions

BACKGROUND

Never Events\(^1\)

• 2007 Centers for Medicare and Medicaid Services (CMS) issued new rules that reduce payment to hospitals for the care required to treat certain hospital acquired conditions
• “could have reasonably been prevented by applying evidence-based guidelines”

8 Never Events

• Pressure ulcers
• Surgical site infection-Mediastinitis
• Blood incompatibility
• Catheter related UTI
• Retained foreign bodies
• Falls with injuries
• Air embolism
• Vascular catheter related infection

Example of Reimbursement Changes

• Principle diagnosis
  – Intracranial hemorrhage with stage III pressure ulcer
  • POA $8,030.28
  • Developed after admission with no additional reimbursement $5,347.30
  • Difference $2682.30

Fall Prevention—the Evidence, Coussement

• 2008 JAGS Systematic Review and Meta-Analysis by Coussement et al
• Fall prevention programs in hospitals
• 8 Prospective Controlled Trials
Fall Prevention—the Evidence, Coussement

• 4 involved unifactorial interventions
• 4 involved multifactorial interventions
• Only 2 studies on acute units
• Overall low quality; only one truly blinded

Results: No conclusive evidence that hospital fall prevention programs can reduce number of falls or fallers.2

Patient/Family Perspectives3

• Cross-sectional exploratory survey study of Medicare patients discharged to a Michigan home care agency were asked about the fall prevention education and strategies to prevent falls they received during their admission.
• Asked about whether they had fallen subsequently after discharge.
• Asked about what recommendations they would make to prevent hospital falls.

Findings

- Patients felt hospital beds were too high and they had to use unsafe strategies to transfer OOB
- 9.9% of survey respondents had experienced a hospital fall and tended to more falls at home ($\chi^2=4.36$, df=1, $P = .04$)
- Patients who fell in hospital felt fall prevention education by staff was more useful than those who did not fall ($\chi^2=9.18$, df = 2, $P = .01$).

Findings continued

- Feedback from participants:
  - Beds too high and narrow (caused fear)
  - Disorderly pathway from bed to bathroom
  - Insufficient fall prevention education (leaving brochure without explanation)
  - Lack of prompt response to call lights

Patient Suggestions

- Lower, easier to adjust bed
- Dry bath floor
- Better in room and hallway lighting
- Wider doorways
- Clear and clean walking pathways in rooms and hallways
- More pull bars in rooms, not just bathrooms
- More walkers and canes available
- Staff should always leave beds in lowest position
- Increased offering of toileting opportunities
- More education about prevention and needs to be repeated as often as possible
- More PT and strengthening activities to maintain muscle strength
Fall Prevention—the Evidence, Oliver

- 2007 BMJ Systematic Review and Meta-Analysis by Oliver et al
- Broader inclusion criteria: individual or cluster randomization, case-control studies, observational cohort studies
- Fall prevention programs in hospitals or care homes

- 43 studies included (16 randomized controlled)
- 13/43 assessed multifactorial interventions in the hospital
- Overall the quality was highly variable

- Results: Meta-analysis of multifactorial interventions in the hospital revealed a rate ratio of 0.82 for falls (no significant effect on fallers).
Fall Prevention—the Evidence Summary

- Challenging population to study
- Difficult to blind to interventions
- Lacking in robust RCTs of Fall Prevention Programs in patients hospitalized on a regular Acute Care Ward
- More research is needed...

High Risk for Falls

- Patients in tertiary-care medical centers:
  - Acute illness
  - Unfamiliar environment
  - Medication changes

Delirium & Falls

- Retrospective chart review of 252 patients who fell during a hospitalization at Massachusetts General Hospital
- Study aim was to determine prevalence of diagnosed and undiagnosed delirium in these fallers
  - 96% of fallers had evidence of delirium
  - 60% of fallers were unable to be discharged home
  - Half of all fallers were 70+
  - 100% of major injury were 70+
  - 87.5% of moderate injury were older adults

Fall Prevention—Practically

- Cognition/Attention:
  Assess and Tx Delirium⁶ & Dementia⁶
- Sensory Deficits:
  Glasses, pocket-talkers, hearing aids
- Elimination:
  Assess Incontinence⁶, Diarrhea⁶, Polyuria⁶
  Bowel or bladder “toileting” program for those with incontinence
  Hourly rounding, Bedside commode

Fall Prevention—Practically

- Mobilization:
  Tx Weakness & Impaired gait
  PT/OT Consults
- Dehydration:
  Check Orthostatics⁶
  Dehydrated, diarrhea, diuresis, poor po, bleeding, prolonged immobility?

Fall Prevention—Practically

- Environment, Sleep:
  Bed alarms, low beds
  Fall slippers, signs, blankets⁷
  Environmental Modifications⁷
  Nonpharmacologic sleep protocol best⁷
Fall Prevention—Practically

- Medications:
  - Medication Review crucial
  - Consider DC unnecessary PRN’s
  - Consider dose reduction

Fall Prevention—Practically

- Medications to Avoid:
  - Anxiolytics, Hypnotics, Sleepers
  - Antidepressants, Antipsychotics
  - Neuroleptics
  - Opioid analgesics
  - Hypoglycemics
  - Antihistamines
  - Antihypertensives, Diuretics

Fall Prevention—Practically

- Medications:
  - Blood thinners, thrombocytopenia and coagulopathy increase risk of INJURY.
  - When you start a heparin gt, make fall education part of your pt counseling.
  - Also, consider using:
    - low bed, bed side mats, helmets
Fall Prevention—Practically

• Monitoring:
  Frequent comfort/safety rounding
  Safety Attendant

• Education:
  Education of patient and family re risk

• Interdisciplinary Approach:
  MDR’s, Nursing, PCA’s, PT/OT

Fall Prevention—Practically

• Interdisciplinary Approach:
  Be part of the TEAM
  Don’t leave the room after moving the patient’s call light and walker out of reach.
  If a patient needs to urinate, and needs help to get up, don’t leave patient alone.

Pressure Ulcer Prevention—the Evidence

• JAMA 2006 Systematic Review
  Only a handful of the 59 RCT’s evaluated met quality standards
  Of these, most were of far too small sample size
Pressure Ulcer Prevention—the Evidence

- Specialized foam, air and other mattresses can reduce incidence (several RCT’s demonstrating this)\(^9\)
- No RCT’s in the review have looked at q2H turning in the acute care setting\(^9\)
- Nutritional supplementation may help reduce incidence (one RCT only showed reduced incidence with standard hospital diet plus 2 oral supplements per day)\(^9\)
- No RCT’s in the review have compared moisturizer vs none\(^9\)

Pressure Ulcer Prevention—the Evidence, Summary

- Difficult to blind to interventions
- Need more high quality RCT’s
- More research is needed…

Pressure Ulcer Prevention--Practically

- **Cognition/Attention:**
  - May not comprehend need for turning
- **Elimination**
  - Bowel or bladder “toileting” program for those with incontinence
  - Hourly rounding
Pressure Ulcer Prevention—Practically

- **Mobilization:**
  Mobilize Patients, PT/OT consults

- **Dehydration:**
  Moisturize

- **Malnutrition:**
  Nutrition consult: RCT’s evaluated did not target interventions to pts with malnutrition

Pressure Ulcer Prevention—Practically

- **Positioning:**
  Turn q2H

- **Environment, Sleep:**
  Specialized Mattress (don’t use donuts)

- **Medications:**
  Treat Pain adequately so pt CAN turn

Pressure Ulcer Prevention—Practically

- **Monitoring:**
  Regular skin exams

- **Education:**
  Educate patient and family about PU risk
  “Patient refused to turn” not good enough

- **Interdisciplinary Approach:**
  MDR’s, Nursing, PCA’s
Small Groups: Understanding the Problem
• Break into Small Groups
• Goal is to identify Challenges and Barriers for each topic
• Record findings on white pad--15 minutes
• Identify one member to present ideas to group

UCSF Fall and PU Prevention Strategies

Building Your Team
• Who should be on the team?
  – Include front-line staff
  – Consider adding patients/family members
  – Consider non-traditional members such as volunteers
• Organizational “buy-in”: are the team’s goals congruent with the strategic plan; are there sufficient resources?
• Develop a formal 3-year work-plan
• Establish clear expectations of membership
  – Committee charter
  – Roles and responsibilities of members delineated
  – Consider a signed “commitment” document
Building teams

Ongoing team training: build expertise
Committee review of current research with discussion of applicability to setting
In depth case reviews of events with group feedback
Development of educational modules for all staff levels with yearly reviews
Formal CE classes
Rewarding creative solutions
Establish reporting relationships/timelines

Ongoing and frequent review of progress to goals, data review, timely intervention with units outside benchmarks

General Fall Prevention Program Components

- Use evidenced-based screening tool at specific times: on admission, each shift, with a transfer to another level of care, with a change in patient condition
- Communicate risk: hand-offs, signage, patient identifier (armband, socks, colored gown)
- Plan of care to mitigate individual risk that includes medication review
- Incorporate technology
- Establish process to address patients personal needs

Fall Prevention Components

- Educate patients and families
- Formal, mandatory staff education
- Collect data: Incident reports, process audits
- Benchmark: national, state, academic/community, units, divisions, services: SET GOALS
- Timely communication to unit of service staff on progress to goals
- REWARD for reaching goals
Falls Data

- Falls per 1000 patient days; # of falls
- Falls with injury per 1000 patient days
- Falls with no, mild, moderate, serious injury, death per 1000 patient days
- %’s of Anticipated, Unanticipated Hazardous condition falls
- %’s of error, versus non-error incidents

Look for trends

- Patient age
- Time of day of fall
- Day of week
- Activity at time of fall
- Service
- POD
- Assisted or not
- Observed: Y/N
- Was call light on prior to fall
- RN caring for patient
- Pain med/sleeper prior to fall
- Associated with restraint use
- Confusion disorientation

Example of falls data comparison: process audits
UCSF Pressure Ulcer Prevention
Understand the Problem, Collect Data, Set Goals

• Case Review
• Failure Mode Effect Analysis
• Track and Trend Incidents
• Share data on rates per services
• Set Unit and Department Goals
• Get Buy-In from Hospital Leadership and Department Leaders

UCSF Pressure Ulcer Prevention
Change the System

• Risk Assessment of all Patients
• Link Risk Assessment to Pressure Ulcer Prevention Bundle (Turning, alternate surface, Pt education, nutrition CS begins wherever risk is assessed—Transfer center, ER, OR)
• Education of PCA’s, RN’s, MD’s, PT’s: Risk assessment, Prevention Strategies
• Communication: “TALK SKIN” Pressure Ulcer Risk Assessment and Skin Exam part of all handoffs
• Raise Awareness: Pressure Ulcer prevention is everybody’s responsibility

Adult Post-Fall Assessment

CY 2008: 60 repeat fallers account for 135 inpatient falls
PFA Objectives

• Standardize imaging after a fall
• Standardize nurse evaluation: neck stability, SBAR, VS monitoring
• Engage physicians in addressing etiology of fall thru med review and comprehensive assessment.
• Standardize documentation after a fall.

PFA Objectives

• Prevent potential adverse outcomes resulting from inappropriate evaluation or monitoring of a patient after a fall.
• Reduce the number of repeat falls.
• Engage physicians and nurses in proactive fall prevention for all patients.
1) Brief description of Fall/Events (2-3 lines max):

2) Physical Exam (focused, key neurological and musculoskeletal findings):

3) Note: Please follow Post-Fall Algorithm to help guide whether patient needs Head CT and frequency of monitoring.

4) Potential Imaging:

   Please answer the following questions:

   [ ] Yes  [ ] No
   Is a Non-contrast Head CT indicated for this patient? (see link to above algorithm)

   [ ] Yes  [ ] No
   Is a plain film of the hip, shoulder or elbow indicated? (see link to algorithm)

   Low threshold if increased risk for injury: very advanced age, osteoporotic, blood thinners, post-op.

5) Risk Factor Assessment:

   Does the patient have the following Fall Risk Factors? (check if applicable)

   [ ] Weakness, deconditioning or an impaired gait
   [ ] Confusion or delirium
   [ ] Diarrhea, polyuria or incontinence and difficulty getting to the toilet
   [ ] Dementia
   [ ] Visual Impairment
   [ ] Orthostasis

6) Medication Review:

   [ ] I have reviewed the medication list for medications that increase fall risk. (Click on attached link for suggested medication review.)

   Please review the patient’s record for medications or combinations of medications that could predispose to falls:

   Consider: Medication:

   1. Recent administration of medications that may predispose to falls.
   2. Combination of medications given together than may increase/intensify predisposition to falls.
   3. Recent addition or dose increase to medication that may increase fall risk.

   Anxiolytics/Hypnotics
   Antidepressants/Antipsychotics
   Neuronalics
   Opioid analgesics
   Hypoglycemics
   Antihistamines
   Antihypertensives/Diuretics

7) Assessment and Plan (brief and focused):

   [Please include strategies to prevent the recurrence of a fall, such as PT consult, discontinuing or reducing dose of an offending medication.]

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Multidisciplinary Rounds

- Constipation
- Labs abnormal
- Oxygen >3L, Sxning Needs
- Vitals Abnormal
- Environ—Needs Isolation
- Requires IV gtt/PICC
- Sleep/depression
- Probs eating/feeding/NPO
- Pain
- Incontinence/Foley
- Confusion/Restraints
- Evid Falls/Dec mobility
- Evid of abuse
- Sensory impairments
- Skin breakdown/Wounds
- Social/Fam Needs

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It's a problem. Put it in your note.

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ACE UNIT

- Small grant to start 5 bed ACE Unit
- Fall and Pressure Ulcer Prevention will be built into:
  - Order Set
  - CareMap
  - Education sessions for MDs, Nurses, PCAs, Volunteers

Small Groups:
Brainstorm Solutions

- Break into Small Groups
- Goal is to brainstorm Solutions for each topic
- Record findings on white pad--15 minutes
- Identify one member to present ideas to group

Summary

- Understand Background Never Events, Falls, Pressure Ulcers
- Understand the problem, Identify barriers and challenges
- Review of UCSF Projects
- Brainstorm Solutions for your institution
References


6. Uk National Patient Safety Centre Falls Prevention Toolkit

