Falls: The Series

May - October 2023

Best Practices to Reduce Falls Associated with Toileting

Learning Session 4 – August 2, 2023

This material was prepared by the IPRO NQIIC, a Network of Quality Improvement and Innovation Contractor, under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. Publication # IPRO-HQIC-Tsk56-23-324

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NQIIC
Network of Quality Improvement and Innovation Contractors
CENTERS FOR MEDICARE & MEDICAID SERVICES iQUALITY IMPROVEMENT & INNOVATION GROUP

IPRO HQIC/QIN QIO

IPRO HQIC

What are HQICs?

Data-driven. It's the data that help hospitals measure progress toward quality improvement (QI) gains. Hundreds of thousands of patients and families benefit from CMS-supported QI projects that make today's hospital stays safer and improve the quality of hospital care.

Dynamic and collaborative. HQICs partner with small, rural and critical access hospitals and facilities that care for vulnerable and underserved patients. Their quality improvement consulting and expertise – offered at no cost to the hospitals – help hospital leaders and clinical teams develop local QI projects designed to:

- Reduce opioid misuse and adverse drug events.
- Increase patient safety with a focus on preventing hospital-acquired infections.
- Refine care coordination processes to reduce unplanned admissions.

HQICs also share their QI resources to assist hospitals with pandemic responses and emergency preparedness.

The federally funded Medicare Hospital Quality Improvement Contractor (HQIC) in 12 states

IPRO (joined by)
- Healthcentric Advisors
- Kentucky Hospital Association
- Qlarant
- Q3 Health Innovation Partners
- Superior Health Quality Alliance
- American Institutes for Research (AIR)
- QSource

States
- MA
- NE
- NY
- OH
- KY
- NJ
- PA
- DE
- MD
- MI
- MN
- WI

The IPRO QIN-QIO

The IPRO QIN-QIO

- A federally-funded Medicare Quality Innovation Network – Quality Improvement Organization (QIN-QIO)
- 12 regional CMS QIN-QIOs nationally

IPRO:
New York, New Jersey, and Ohio

Healthcentric Advisors:
Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Qlarant:
Maryland, Delaware, and the District of Columbia

Working to ensure high-quality, safe healthcare for **20% of the nation's Medicare FFS beneficiaries**

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Series Schedule: 2 – 3 pm EST

Date	Session #/Topic
Wednesday, May 3	1. Enhancing Capacity – Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity, and Sustainability
Wednesday, June 7	2. Redesigning Post-Fall Management: Prevent Repeat Falls
Wednesday, July 5	3. Best Practices to Reduce Falls Associated with Toileting
Wednesday, August 2	4. Safe Mobility is Fall Prevention
Wednesday, September 6	5. Population-Specific Fall and Injury Prevention
Wednesday, October 4	6. Reducing Fall-Related Injuries: Protective Interventions' Evidence, Application, and Success

Your Participation Will:

- Support organizational systems and teams to expand program infrastructure and capacity;
- Help you redesign your fall prevention and injury reduction program;
- Complement your evaluation program; and
- Provide access to an online learning community to increase exchange of experiences, innovations, and best practice implementations.

Series Speaker

Patricia A. Quigley, PhD, APRN, CRRN, FAAN, FAANP, FARN

Nurse Consultant

- Dr. Quigley is the President and Managing Member of Patricia A. Quigley, Nurse Consultant, LLC, which provides consultation to healthcare systems and patient safety organizations to advance patient safety programs and re-engineer integration of innovation at the point of care.
- For more than 45 years, Dr. Quigley has practiced in the field of rehabilitation nursing. She is recognized for her leadership as a speaker, scholar, researcher, author, educator, and mentor.
- Dr. Quigley's contributions to patient safety, nursing, and rehabilitation are highly respected both nationally and internationally. She is known for her emphasis on clinical practice innovations designed to promote independence and safety for the elderly.
- Dr. Quigley is currently a member of the National Quality Forum's Prevention and Population Health Committee.

Falls: The Series

May-October 2023

Safe Mobility is Fall Prevention

Learning Session 4 – August 2, 2023

Safe Mobility is Fall Prevention

Patricia A. Quigley, PhD, MPH, APRN, CRRN,
FAAN, FAANP, FARN, Nurse Consultant

August 2, 2023

e-mail: pquigley1@tampabay.rr.com

Our Webinar Schedule

- Webinar 1: May 3. Enhancing Capacity: Reengineering Fall and Fall Injury Programs: Infrastructure, Capacity, and Sustainability
  - Coaching Session: May 17, Open Forum, Discussion
- Webinar 2: June 7. Redesigning Post Fall Management
  - Coaching Session: June 21, Open Forum, Discussion
- Webinar 3: July 5. Best Practices to Reduce Falls Associated with Toileting
  - Coaching Session: July 19, Open Forum, Discussion

Our Webinar Schedule (cont.)

- Webinar 4: Aug. 2. Safe Mobility is Fall Prevention
  - Coaching Session: Aug. 16, Open Forum, Discussion
- Webinar 5: Sept. 6. Population-Specific Fall and Fall-injury Prevention
  - Coaching Session: Sept. 20, Open Forum, Discussion
- Webinar 6: Oct. 4. Reducing Fall-related Injuries: Protective Interventions, Evidence, and Application
  - Closing Coaching Session: Oct. 18 Open Forum, Discussion
- Thank you!

My Goals

- Challenge and inspire you to add precision to your patient safety practices, **safe mobility** and fall prevention clinical practices to ***reduce risk factors*** and improve health and function.

My Hope:

- *Change your practice* beyond an over-reliance on screening tools (mobility and falls), universal precautions and approaches to care driven by a score.
- Implement individualized/population-specific care planning to **safe mobility** and fall prevention, detection and protection.

Objectives: Safe Mobility and Fall Prevention

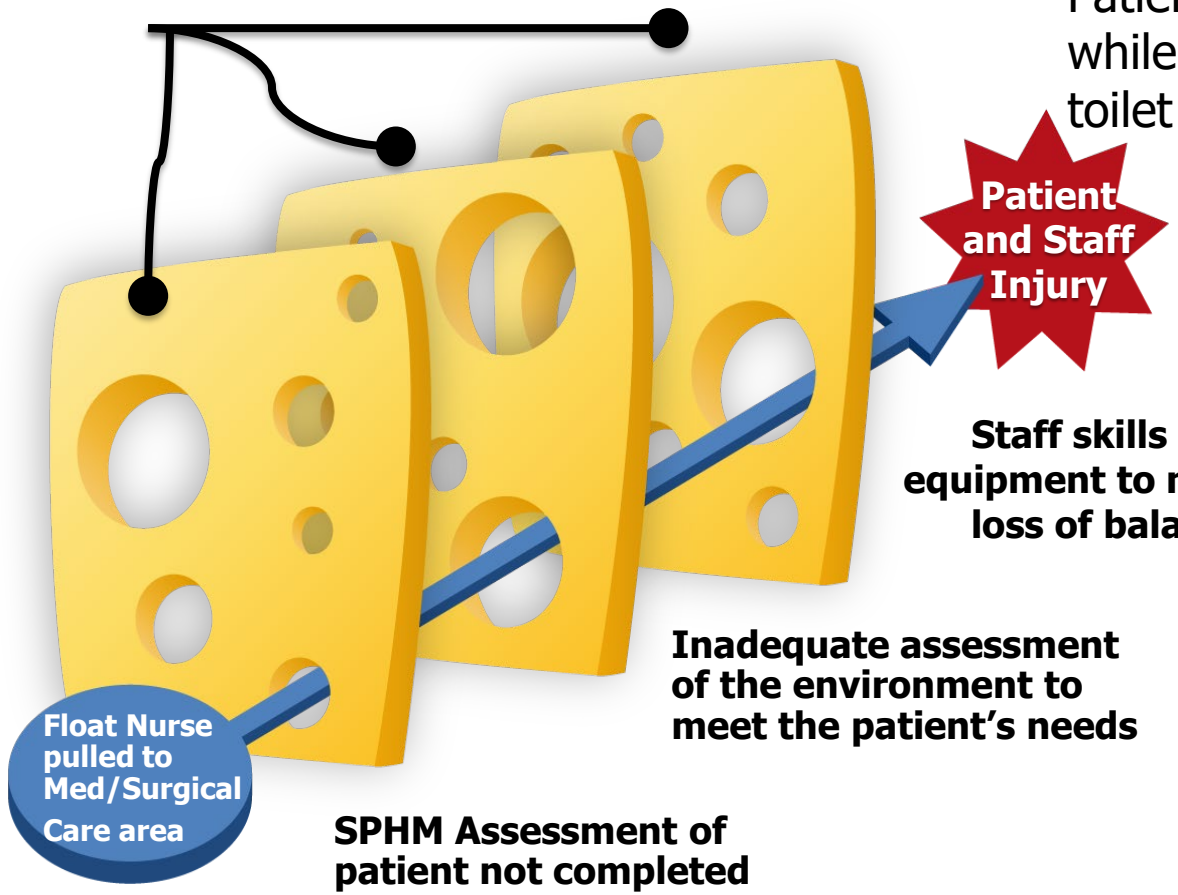
- Distinguish Models for Managing Risk for Falls Due to Unsafe/Unassisted Mobility
- Differentiate Strategies for Transforming Practice for Safe Mobility
- Apply Practice Imperatives to Commit to Change for Patient and Staff Safety

Understanding and Managing Risk

- Understand, manage, and **reduce risk**
- Associated with patient, environment, and the interaction within organizations.
- Who is NOT at Risk?
- Risk Adjustment

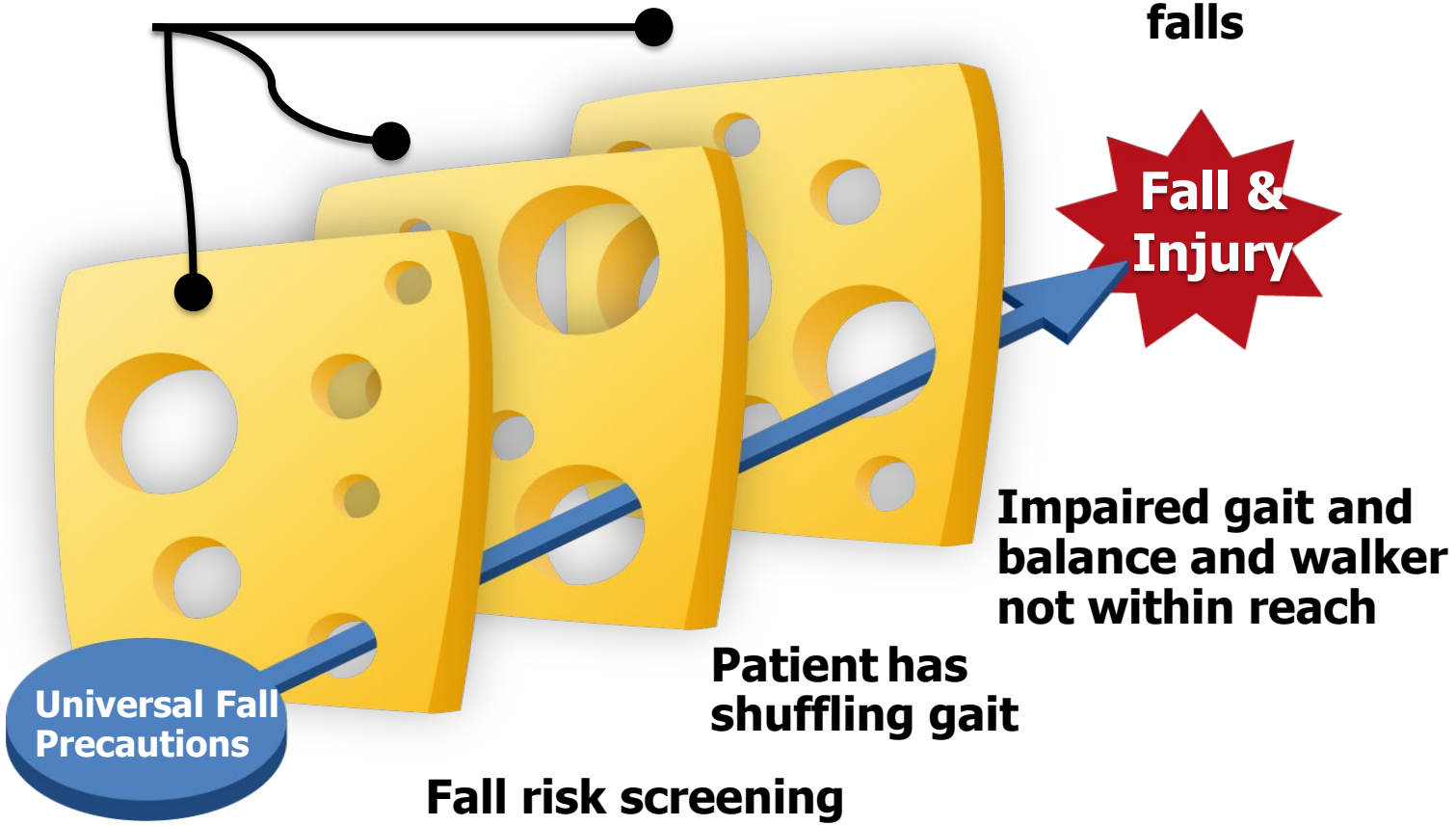
SPHM: Patient Handling Injury

Barriers to prevent injury



Fall Event: Fall Risks

Fall Risk Factors



Risk Adjustment

- Differentiate level of vulnerability
  - Each patient
  - Each unit
  - Each hospital
- Determine readiness to protect from harm based on vulnerability
- How ready are you to protect your staff and patients from injury during mobility? Infrastructure and capacity?

Aging Hospital Population: 2010

- 45% of the inpatient hospital population in the US was 65 years of age and older
- Among whom 19% were ages 75-84
- 9% were 85 years and older.

Levant, S., Chari, K., & DeFrances, C.J. (2015). Hospitalizations for patients age 85 and over in the United States, 2000-2010. NCHS Data Brief. No. 182. Available at: hppt://www.cdc.gov/nchs/data/databriefs/db182.htm.

Manage and Reduce Risk

- Patient: screening is NOT the same as assessment
- Environment: infrastructure and capacity must be enhanced
- Interaction between both patient and environment: consider cognitive and mobility function and individualize the environment

Context matters: culture, leadership, varying levels of clinical expertise and judgment, and patient autonomy

Population Determinants to Differentiate Vulnerability

- Age
- Cognition
- Fall history
- PMH/PSH (hip fracture/ORIF, TBI)
- Comorbidities
- Health literacy

Fill in Your Pyramid – You Have to Know Your Level of Risk

Which Model Do You Favor?

- Accident Theory
- Risk Adjust
- Population Determinates

How about a combination?

Let's go for my 85 y/o population. What resources do you need for **safe mobility** and prevention from injury *when (not if) they fall?*

Differentiate Screening from Assessment

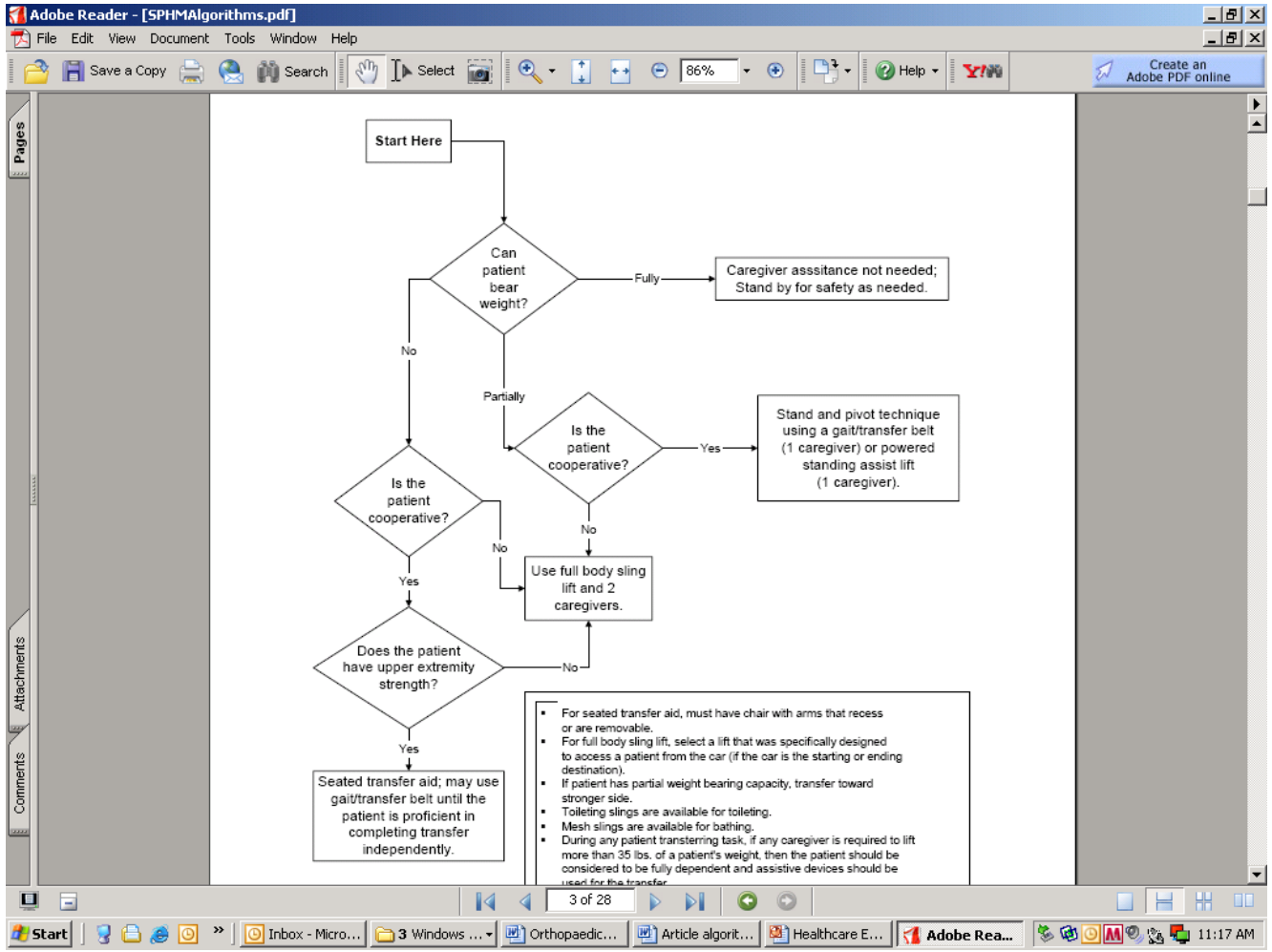
- Screening
  - Pathology / Disease Detection
  - Who should undergo diagnostic testing for confirmation - Cut off point to be negative or positive
- Assessment
  - Data for differential diagnosis

Example: Yes to Hx of Falls; Hx of FRI

Assessment is Comprehensive – Interdisciplinary

- Screening, if +, proceed to assessment
- History: If Hx of falls, ask about the falls-etiology, circumstances, etc.
- Observation – Gait and balance
- Physical Exam - PN
- Vital Signs - OH
- Functional Assessment – Single Leg Stance
- More……

SPHM Algorithms: Traditional Suggested Care Pathway



VISN 8 PSCI, 2005, Safe Patient Handling and Movement Algorithms

1. Transfer to and from: bed to chair, chair to toilet, chair to chair, or car to chair
2. Lateral transfer to and from: bed to stretcher, trolley
3. Transfer to and from: chair to stretcher, chair to chair, or chair to exam table
4. Reposition in bed: side to side, up in bed
5. Reposition in chair: wheelchair or dependency chair
6. Transfer a patient up from the floor

https://www.lmcins.com/uploads/3/2/0/7/3207324/safe_patient_handling.pdf

BMAT for Nurses: My Assertion Not an Assessment Tool

Test/Task/Response/Fail (choose most appropriate equipment/device(s)/Pass

Assessment Level 1: cognition, trunk strength; seated balance

Assessment Level 2: LE strength, stability

Assessment Level 3: LE strength for standing

Assessment Level 4: standing balance; gait

Morse Fall Scale (Morse, 1997, *Preventing patient falls*.) This is a Screening Tool, *Not an Assessment Tool*

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

The HD (Hester Davis Nursing Solution)

With a comprehensive, ***individualized*** falls management program, providers will have the tools needed to improve patient safety outcomes and address the growing costs associated with falls.

- Predict: Hester Davis Fall Risk Assessment Scale©
- Prevent: HD Falls Care Plan©
- Sustain: HD Falls Tool Kit©

https://hdnursing.com/hd-falls-program/

Polling Question #1

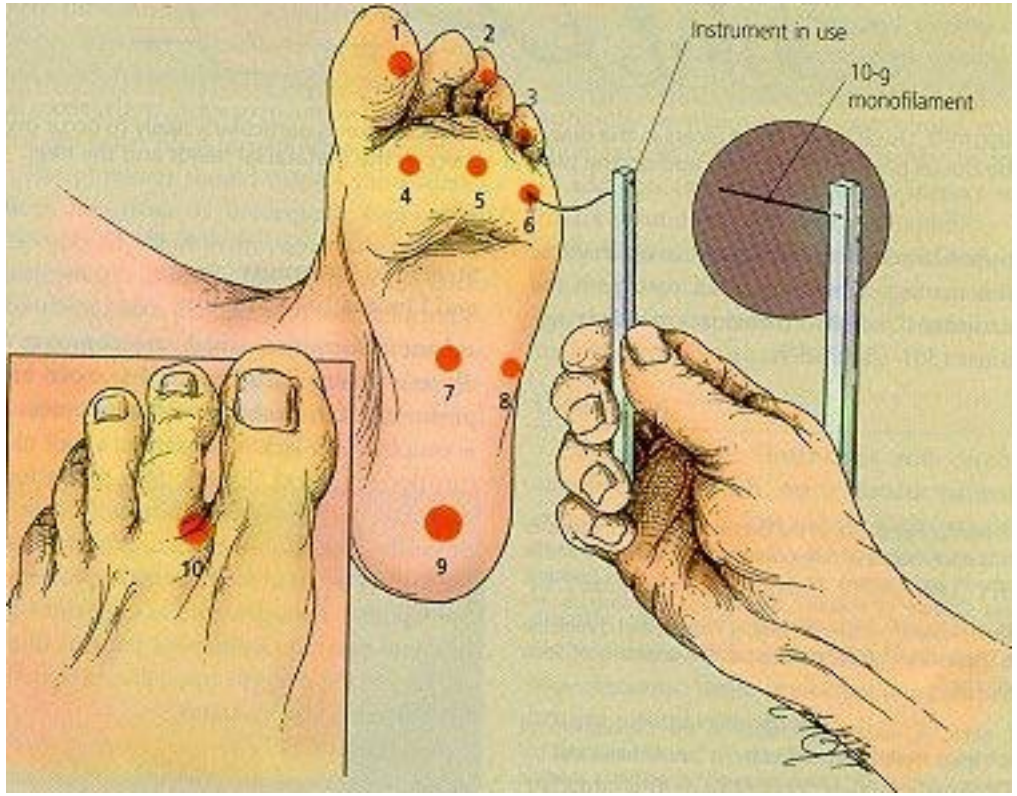
- Do you take care of patients living with chronic diabetes?
  - Raise your hand

Polling Question #2

- If you said yes, do you assess for lower extremity sensory neuropathy as part of your pre-mobility assessment?
  - Raise your hand

Sensory Monofilament Exam

- Determine if patient can feel pressure when eyes are closed



Safe Mobility AND Fall Prevention: Non-Skid Socks vs Shoes

Proper footwear

- Stop universal use of non-skid socks
- Criteria for use of non-skid socks
- Use shoes for walking
- You can't put non-skid socks on a diabetic pts with severe peripheral neuropathy!

Polling Question #3

- Do you take care of 65 and older with hypertension and treated with antihypertensive agents?
  - Raise your hand

Polling Question #4

- If you answered yes, do you assess for postural hypotension as part of your pre-mobility assessment?
  - Raise your hand

Measuring Orthostatic Blood Pressure

1. Have the patient lie down for 5 minutes.
2. Measure blood pressure and pulse rate.
3. Have the patient stand.
4. Repeat blood pressure and pulse rate measurements after standing 1 and 3 minutes.

A drop in bp of ≥20 mm Hg, or in diastolic bp of ≥10 mm Hg, or experiencing lightheadedness or dizziness is considered abnormal.

Position		Time	BP	Associated Symptoms
Lying Down		5 Minutes	BP _____ / _____ HR _____	
Standing		1 Minutes	BP _____ / _____ HR _____	
Standing		3 Minutes	BP _____ / _____ HR _____	

For relevant articles, go to: **www.cdc.gov/injury/STEADI**

Safe Mobility AND Fall Prevention

- Positive OH
- Symptomatic vs. non-symptomatic
- Strategy for mobilization
  - Contact guard vs standby assist
  - Rolling seated walker

Strategies to Transform Practice

Align practice redesign and innovations with *national patient safety priorities:*

- Reduce harm: workforce injury, patient fall injuries
- Create safe environments
- Patient engagement

Facts – What We Know from the Evidence

- Not all falls are equal
- Universal fall prevention bundles are not effective
- Forced immobility is causing harm
- ”Non-compliance” is overused
- Bed alarms cause more harm than good
- Falls are not just a nursing issue
- Staff are still getting injured

Facts – What We Know from the Evidence

- Sitters don’t prevent falls (with sitters, most falls are not assisted; Feil & Wallace, 2014)
- Evidence to support intentional rounding is weak, feasibility for sustainability is uncertain (LeLaurin & Shorr, 2019)
- Patients’ own footwear remains safest option for fall prevention (not non-skid socks) (LeLaurin & Shorr)

Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

Practice Imperatives:

- Identify and address each patient's specific fall and injury risk factors (Lelaurin & Shorr, 2019)
- Integrate new systems and devices (webcams, video telesitter technology) that better predict and prevent falls than bed alarms (Lelaurin, et al; Quigley, et al, 2019)
- System-based interventions work: toileting (i.e., wake em, take em; timed toileting; assist in and out of bed) (Resnick & Boltz, 2019)

Nationally Adopted Interventions to Reduce Preventable Falls and Fall-related Injuries

- Interventions to increase physical activity (motivate and engage patients in activity) *increase* function and mobility (Resnick & Boltz, 2019)
- Function-focused care – *increases* physical activity (Resnick & Boltz)
- Sept 28, 2015: TJC #55 Sentinel Alert: Preventing Falls and Fall Injuries
- D. Oliver, et al. Falls and fall-related injuries in hospitals. (2010, Nov). *Clinics in Geriatric Medicine*. 26(4). p. 645-692.

Safe Mobility: Reduces Workforce Injury

- SMPH: More Time for Staff to Use Equipment for Increasing Bariatric Population (Galinsky, et al. 2021)
- Adherence to Best Practice Recommendations (Sorenson, et al. 2018)

Ergonomic Exposures Associated with Caregiver-Assisted Activities of Daily Living (ADLs) – So Many Ways for Injury to Occur

- Bending
- Twisting
- Lifting
- Crouching
- Reaching
- Static postures
- Slippery floors
- High forces
- High repetition

Have to use SPHM

Equipment to prevent injury

Staff Safety Perspective

- Staff are getting hurt protecting patients from being injured during a fall occurring while transferring or ambulating
- Staff safety will improve if we can prevent patients from falling
- Staff safety = patient safety

Example: Assisted Toileting

- Patient assessment
- Environmental assessment
- Injury risk assessment
- Interface of the patient – environment
  - Function
  - Height

Other Examples – Assisted Mobility

- Bed/chair transfers
  - Safe exit sides
  - Height adjustment
  - Arm rests/grab bars
- Assisted ambulation
  - CGA/SBA
  - Gait belt

Gait Belts

- Venema, D.,M. Skinner, A.M., Nailon, R., Conley, D., High, R., & Jones, K.J. (2019). Patient and system factors associated with unassisted and injurious falls in hospitals: An observational study. *BMC Geriatrics, 19*: 348. Available here

Study Purpose

- This study identified risk factors for unassisted and injurious falls in rural hospitals. Methods: Seventeen hospitals reported 353 falls over 2 years in rural hospitals.
- Categorized falls by type (assisted vs. unassisted) and outcome (injurious vs. non-injurious).

Findings: Odds of Falling

- 2.55 times greater for a patient aged ≥65 than < 65 (95% confidence interval [CI] = 1.30-5.03)
- 3.70 times greater for a patient with cognitive impairment than without (95% CI = 2.06-6.63), and
- 6.97 times greater if a gait belt was not identified as an intervention for a patient than if it was identified (95% CI = 3.75-12.94)

My New Injury Reduction Intervention

- ***Gait belts reduced patient injuries during an assisted fall:*** among adults 65 and older, the risk for patient injury was 3.65 times greater if the fall occurred with hands-on assistance provided without a gait belt, compared to those who fell with hands-on assistance with a gait belt
- **Opportunity to teach nurses assisted mobility techniques**

Fall Injury Interventions

- Floor mat
- Hip protectors
- Helmets
- Low beds
- Eliminate sharp edges
- Assisted fall
- *Gait belts*

Falls Committee Includes SPH

- SPH facility champion attends regular Falls Committee mtgs.
- Falls Committee owns:
  - Pre-Mobility Assessment (OH, PN)
  - Audits for:
    - Falls interventions
    - Use of equipment for Total Assist patients

Falls Committee Collaboration

- Invite SPH Facility Champions to monthly Falls Committee meetings
- Demonstrate through data and stories the interdependence of patient handling injuries and falls prevention
- Develop protocols to communicate type and assistance with mobilization

Set Goals

- Increase assisted bed exits 50% in 1 year
- Increase assisted ambulation by 75% in 1 year
- Increase assisted falls by 20% in 1 year

Integrate Protocols

- Mobility Protocols (CGA, SBA, AD within reach)
- Re-engineer Sitter Programs to Mobility Aides
- Aligning Interventions to Specific Outcome
- Set Up Balancing Measure – Staff Injuries vs. Assisted Fall

Accidental Falls Due to Falls from Low Beds

- Structural goal: develop a safe bed program (height adjustable beds, safe exit side, concave mattresses)
- Outcome goal: reduce bed-related patient falls by 70% on rehab unit within 1 year
- Set up your task force

Anticipated Physiological Falls due to Postural Hypotension

- Structural goal: implement a postural hypotension program (P&P, EMR templates; pt assessment and care management) by 5 months
- Outcome goal: reduce falls due to OH by 80% in 1 year
- Set up your task force

Injurious Falls from Bed

- Structure goal: implement a floor mat program (product selection, pilot test, P&P development, EMR template, staff education, patient education) by 6 months
- Outcome goal: within 1 year, 90% of patients who fall from beds will fall on a floor mat (reduce fall-from-bed serious injuries by 80% in 1 year [some body parts fall outside the floor mat surface area)
- Set up your task force

Rely on Small Tests of Change: Planned Change Theory

- Plan-Do-Check-Act (PDCA)
  - Focus on assisted falls and connection to patient handling in other departments during ambulation and transfers
  - Revise patient mobility assessment
  - Implement electronic assessment
  - Develop new work standards

Life is Rich with Opportunities

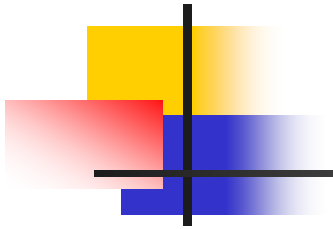
- The evidence supports opportunities to enhance safe mobility and fall and fall with injury prevention program infrastructure
- What will you do to ***change practice?***

That's implementation science

- Focus on risk factors
- Focus on preventing injury
- Learn from adverse events - falls and injuries
- Partner with patients and family members

Rethink Zero…

- Are you still trying to get to zero fall rates?
- Rethink this…..
- Always remember the other side of the equation



What Critical Lessons Did You Learn?

Thank You and Please Share More!

- See you on Aug. 16th for our Follow-Up Coaching Session – Please Join Us!
- Thank you for attending, be a champion for change, and keep me posted – I am here for you!
- pquigley1@tampabay.rr.com

You Can Always Reach Me!

- Patricia Quigley, PhD, MPH, ARNP, CRRN, FAAN, FAANP, FARN, Nurse Consultant
- pquigley1@tampabay.rr.com

References

Clinics in Geriatric Medicine, May, 2019

Optimizing Function and Physical Activity in Hospitalized Older Adults to Prevent Functional Decline and Falls

- Barbara Resnick, Marie Boltz, p237–251

Preventing Falls in Hospitalized Patients: State of the Science

- Jennifer H. LeLaurin, Ronald I. Shorr, p273–283

Outcomes of Patient-Engaged Video Surveillance on Falls and Other Adverse Events

- Patricia A. Quigley, Lisbeth Votruba, Jill Kaminski, p253–263

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Bed Height – Read:

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SPHM

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Thank You for Attending Today's Event

We value your input!
Please complete the brief survey after exiting event.

Next Steps

Join us for our next Coaching call: August 16, 2023, 2-3 pm EST

Falls series recording and slides: https://qi.ipro.org/2023/04/19/fall-and-injury-prevention-a-6-part-webinar-series/

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