

Falls: The Series

May - October 2023

Population-Specific Fall and Fall-Injury Prevention

Coaching Session 5 – October 18, 2023

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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.



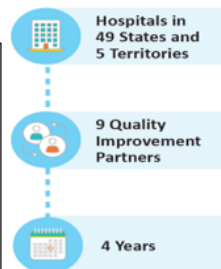
The federally funded Medicare Hospital Quality Improvement Contractor (HQIC) in 12 states

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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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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.



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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.



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IPRO Coaching Webinar

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Coaching Webinar Series Objectives

- Provide an open forum for sharing, collaboration and support
- Compose strategies to reduce barriers and enhance facilitators to short-term and long-term program implementation
- Address additional areas of fall program management as a community of learning



Refresher: Reducing Fall-Related Injuries: Protective Interventions' Evidence, Application and Success

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

Patricia A Quigley Nurses Consultant, LLC
October 18, 2023



Our Goal

- Inspire **you** to integrate protective interventions into your practice.
- Support your efforts to reduce your patients' risk of injury and severity of injury when falls occur.
- Increase your injury prevention toolkit resources: products (current and innovative floormats, hip protectors, helmets, and gait belts) and practices (elimination of sharp edges, low bed height, and assisted mobility).



Session Objectives

Participants will learn:

- Evidence about injury prevention interventions;
- Strategies to integrate protective interventions into population-specific fall and injury prevention plans of care;
- Approaches to reduce barriers to implementation at the point of care; and,
- Methods to move from adoption to sustainability into practice.



National Directives to Protect Patients from Harm Due to Falls

The current national guidelines and best practice to protect rehabilitation patients from *fall-related injury* has been met with resistance among rehabilitation providers across settings of care.

While healthcare organizations are expected to provide **evidenced-based care**, health care providers across roles and settings are generally **un**aware of the laboratory-based evidence of the protective properties of protective interventions.

All healthcare organizations have a responsibility to be **intentional** in efforts to reducing harm.



Our Dilemma

- Lack of knowledge, barriers and resistance to implement injury reduction strategies.
- Injuries due to falls are still occurring in our care.
- Injuries can result in loss of function and loss of life.



Solutions to Reduce *Severity* of Fall-Related Injury Exist

1. Products:
 - ✓ current and innovative floormats,
 - ✓ current and innovative hip protectors,
 - ✓ current and innovative helmets, and
 - ✓ gait belts
2. Practices:
 - ✓ assess for injury risk and history,
 - ✓ elimination of sharp edges,
 - ✓ low bed height, and
 - ✓ assisted mobility

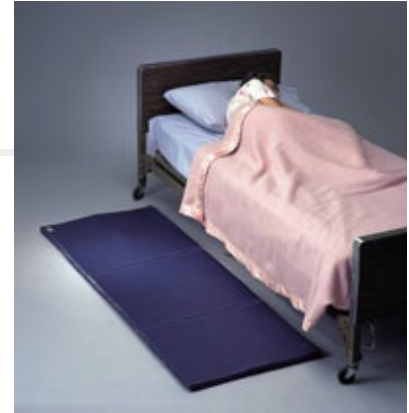
Floor Mats to the Rescue!



Bedside Fall Cushion



Performance Mat



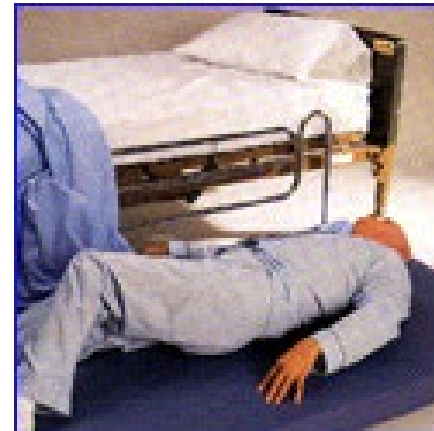
Floor Cushion



Tri-fold bedside mat



Roll-on bedside
mat



Soft Fall bedside mat



Met with Resistance

- Trip hazards
- Bed placement protocols
- Storage
- Lifespan
- Infection control
- Solutions were needed



Understanding Biomechanics

- Biomechanical forces of falling from bed can be minimized with the use of height-adjustable low beds that are kept in the low position, lowering side rails to decrease the height of a fall, and using bedside floor mats to decrease the impact of a fall.

(Biomechanical Research May, 2007, VISN 8 PSCI)



Summary of Results

Feet First Fall from Bed

No floor mat fall over top of bedrails:
~40% chance of severe head injury

No floor mat, low bed (no bedrails): ~25%
chance of severe head injury

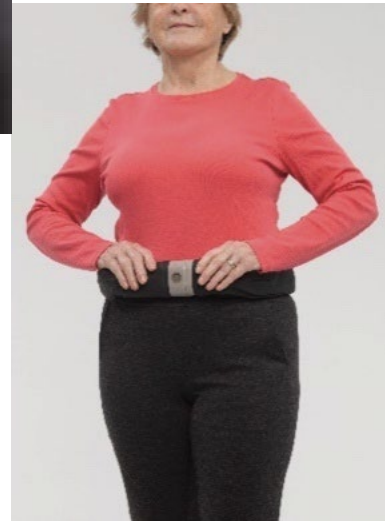
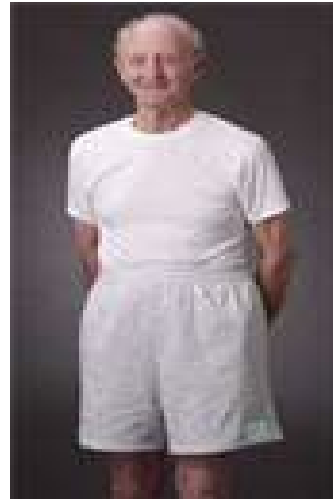
**Low bed with a floor mat: ~ 1%
chance of severe head injury**



Breaking Down the Barriers to Implementation-Performance Mats

- Clinicians worked with engineers to develop a floor mat solution that would solve the issues leading to resistance and developed a mat with the following properties:
 - All 4 edges beveled
 - Can stay at the bedside without needing to be moved to provide care
 - Made of material that can withstand multiple impacts over time and not lose its protective value
 - Fluid resistant
 - Materials are antimicrobial
 - Will last longer in continual use

Hip Protectors to the Rescue!





Met with Resistance - Barriers to Use

- Adherence: comfort, appearance, extra time and effort needed to take them on and off, physical difficulties or illness, and cost
- Social Marketing: provider awareness, provider-patient communication, and availability



Hip Protectors

- The vast majority of fractured hips are the result of a fall with direct impact on the greater trochanter of the proximal femur
- A protective garment to cover the greater trochanter to reduce impact forces on the hip
- Hip protector are infrequently worn



Making Health Care Safer II 2013

Chapter 19: Preventing In-Facility Falls

- ◆ Cochrane Reviews and Oliver, et al, 2006 (updated 2010) Systematic Literature Reviews
 - Isomi M. Miake-Lye, B.A.; Susanne Hempel, Ph.D.; **David A. Ganz, M.D.**, Ph.D.; Paul G. Shekelle, M.D., Ph.D.
- ◆ **17 Multifactorial Trials between 1999-2009** were reviewed.
- ◆ **Supplemented by 3 more recent large-scale studies.**
- ◆ **Includes Hip Protectors!**

New Technology: Tango Belt



Easy-to-wear, unobtrusive, and springs into action over the hips when sensors indicate a serious hip-impact fall. On-demand protection and connectivity provides peace of mind and encourages safer mobility.

Helmets to the Rescue!





What we Know About Helmets

- Use is not new
- Reduces trauma impact to the head
- Use for TBI patients has not been widely accepted by providers and patients
- Patients feel stigmatized when wearing a helmet
- Are bulky and uncomfortable, low adherence

All rehabilitation nurses know the importance of wearing head protection for people with higher fall risk



Commitment to Protect from TBI

- Trauma to the Brain Still Occurs
 - But...helmets reduce skull fracture, reduce impact injury to head and brain
 - Protection requires action
 - For: repeat fallers; persons with TBI, seizure, prone to thrashing, self-abuse, sudden or unpredictable movements
 - Helmets available in full coverage or partial coverage
 - No such thing as “one size fits all”



Innovative Clothing

- Empowers people to be themselves
- Breaks down stigmas by allowing them to be active without the fear of a (head) injury
- All other helmet technology has been met with resistance due to the weight, design, and lack of personal appeal
- Discrete protection

Gait Belts to the Rescue!



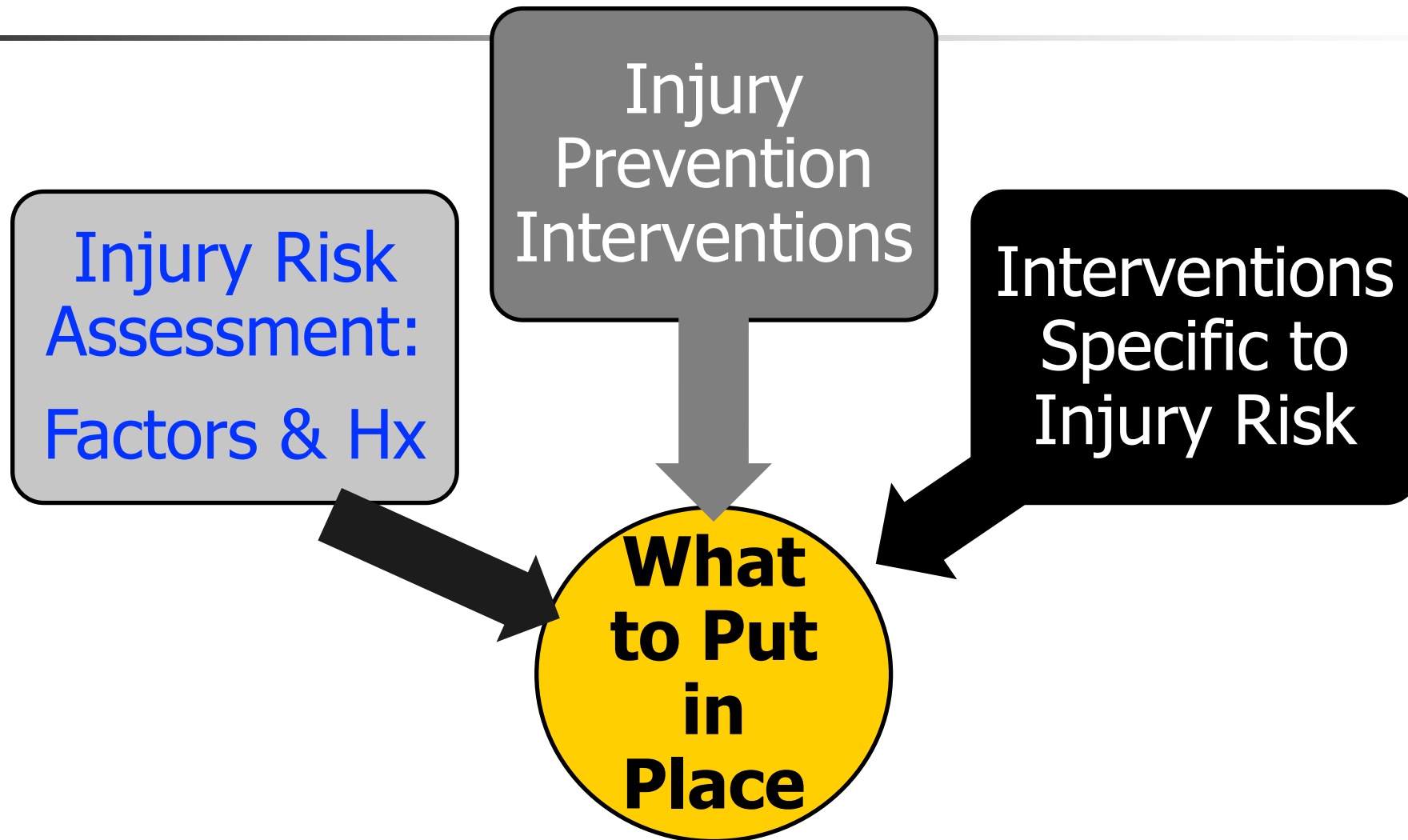


Gait Belts Reduce Patient Injuries

- 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](#)



Integration into Practice





Shifting Practice

- Preventing falls is the first line of defense for preventing injury, but we will never remain in a zero-fall state so there must be focus on protecting from fall related injury
- Integrate injury risk/history on admission
- Implement universal injury reduction strategies
- Implement population-specific fall injury reduction interventions



Fall Injury Interventions

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

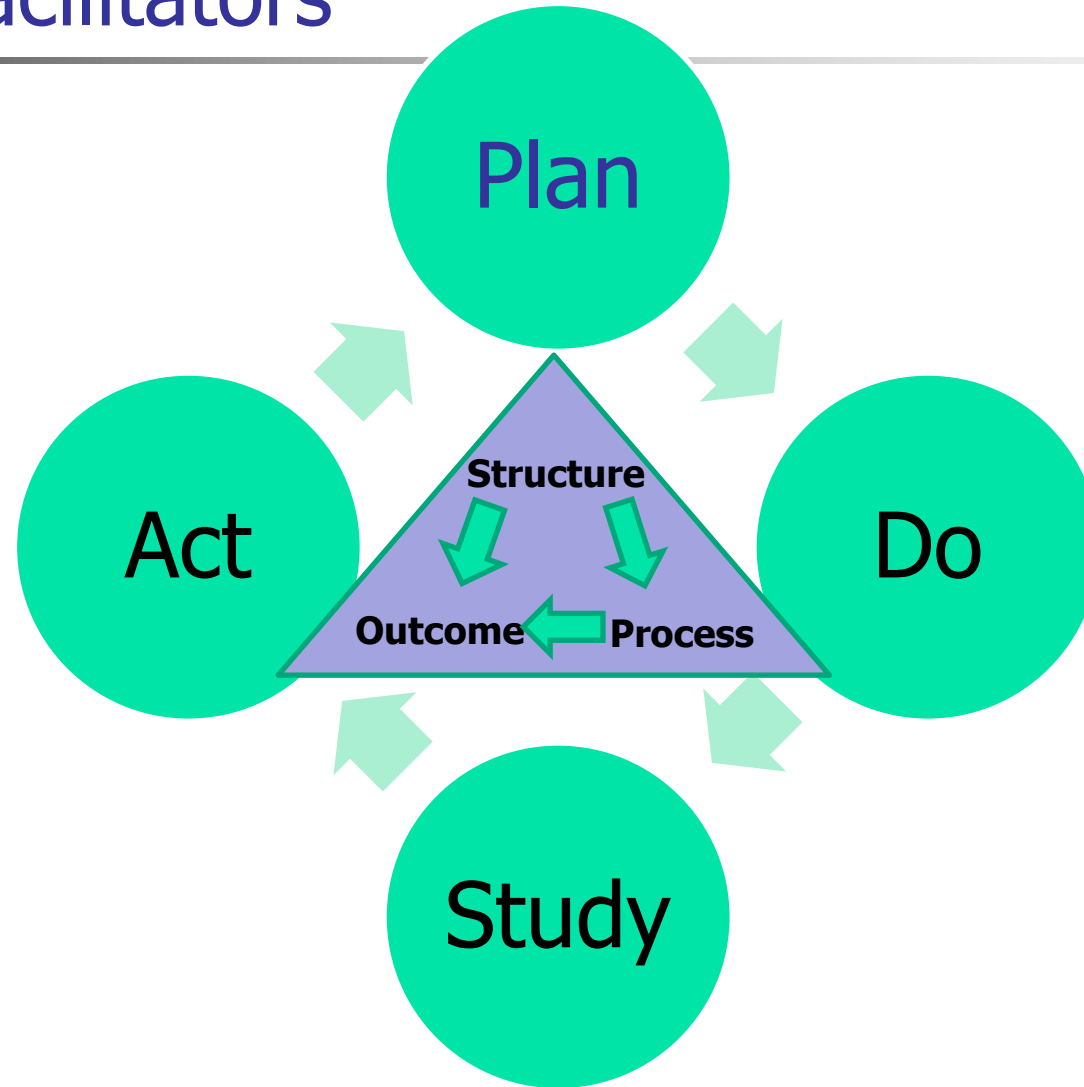


Implementation: Adoption and Sustainability

Quality improvement framework:

- Blend planned change theory and innovation diffusion to achieve integration and sustainability of protective interventions.
- Introduce quality improvement methods to translate evidence into practice – P&P, EMR, Staff and Patient/Caregiver Education, and Audit Practice (collect data!)

Performance Improvement Model Incorporating Donabedian's Quality Framework: Reduce Barriers and Increase Facilitators





Thank you to CarlaLisa, Amy, Lynn, and
Dominic. Thank you ALL!

Thank you to our sponsors: IPRO HQIC; IPRO,
Healthcentric Advisors, and Qlarant

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Your Time to Share

- What topics are you interested in implementing?
- What steps have you taken since our webinar?
- What questions do you have?



Other Questions and Comments

- How else can I help you?



Thank you!

You Can Always Reach Me!

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

Thank you, Dr. Pat Quigley!



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Next Steps

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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