CENTERS FOR MEDICARE & MEDICAID SERVICES
CENTER FOR MEDICARE & MEDICAID INNOVATION

Successes in Falls Prevention

HEN Leadership, Improvement Advisors, and Hospitals Pacing Event

June 2, 2016

Welcome

Welcome!

Who's in the Room?

Kendall K. Hall, MD, MS
Managing Director
IMPAQ International, LLC
NCD Project Director

Overview

- Questions to Run On
  - Kendall Hall, MD, MS (NCD)
- Patient Perspective
  - Mary Brennan-Taylor
- Collaboration and Proactive Teamwork Used to Reduce (CAPTURE) Falls
  - Katherine J. Jones, PT, PhD, and Victoria Kennel, PhD
- Ohio Children's Hospitals' Solutions for Patient Safety Falls: Lessons Learned in Sustaining The Gains
  - Hila Collins, MS, RN, CPNP-AC, CIC
- Questions and Answers
- Key Takeaways
- Comments from CMS

Questions to Run On

1. What are your HEN’s opportunities to make progress in reducing falls and falls with injury rates at your hospitals? How do you plan to address those opportunities?

2. What strategies considered in the care of pediatric patients can be implemented in your hospitals and potentially expanded to other populations served?

3. How will you identify reliable protocols that will ensure the sustainment of high performance on falls reduction?

Patient Perspective

Mary Brennan-Taylor
Patient Advocate

Alice Brennan

Collaboration and Proactive Teamwork Used to Reduce (CAPTURE) Falls

Hospital Engagement Network
Weekly Pacing Event
June 2, 2016

Katherine J. Jones, PT, PhD
Victoria Kennel, PhD

Disclosure

The content is solely the responsibility of the authors and does not necessarily represent the official views of the Agency for Healthcare Research and Quality.

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- Grant number R18HS021429 from the Agency for Healthcare Research and Quality
- Nebraska Department of Health and Human Services, Division of Public Health and the Nebraska Office of Rural Hospital Flexibility Program
- University of Nebraska Medical Center College of Medicine Summer Research Scholarship

Research Team

University of Nebraska Medical Center

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- Roni Reiter-Palmon, PhD
- Joseph Allen, PhD
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Nebraska Medicine

- Regina Nailon, RN, PhD

Methodist Hospital

- Deborah Conley, MSN, APRN-CNS, GCNS-BC, FNGNA

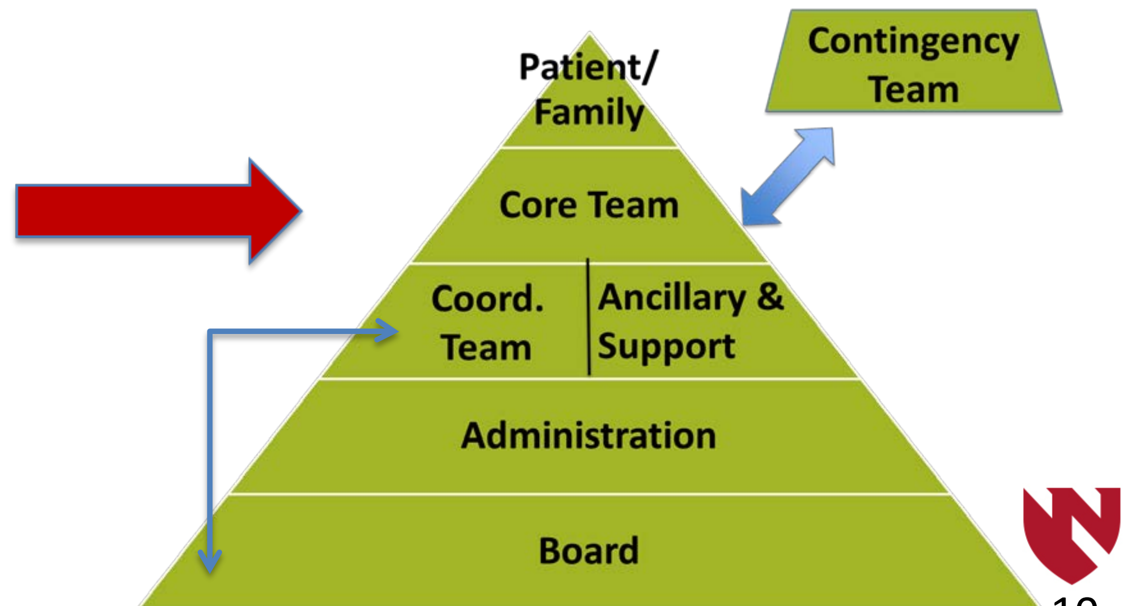
Objectives

1. Explain the composition and role of a fall risk reduction coordinating team
2. Recognize the association between effective coordination of fall risk reduction and fall rates
3. Describe the association between gait belt availability and usage on fall assistance and fall-related injury

CAPTURE Falls in 17 NE Hospitals

- Purpose: Decrease risk of falls in nation's smallest hospitals
  - Support implementation of customized action plan by interprofessional coordinating team
  - Evaluate implementation (structure-process-outcomes)
  - Develop and disseminate toolkit http://www.unmc.edu/patient-safety/capturefalls/

http://www.gettyimages.com/creative/nurses-running-stock-photos



http://teamstepps.ahrq.gov/

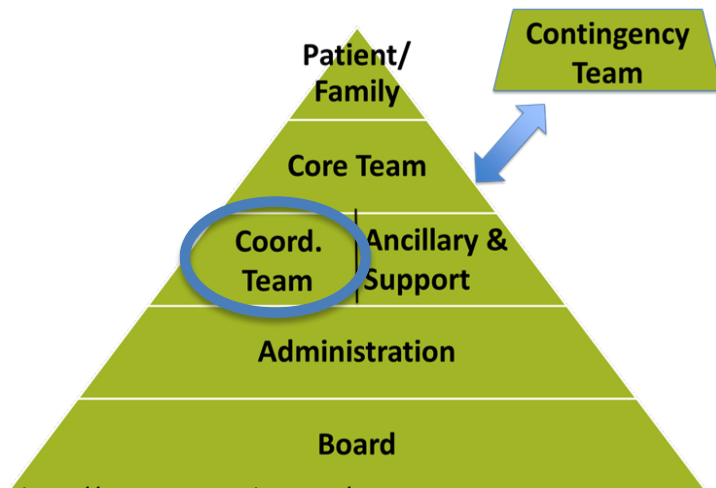
CAPTURE Falls Toolkit

Publicly Available at:
http://www.unmc.edu/patient-safety/capturefalls/

- Fall Risk Assessment
- Worksheet to Compare Predictive Values of Risk Assessments
- Fall Risk Reduction Interventions
- Learning Forms
- Teamwork and Multiteam System
- Effective Meetings
- Post-Fall Huddles and Post-Fall Huddle Guide
- Using Data
- Mobility Assessment
- Safe Transfers & Mobility (16 videos)
- Medication Review
- Health Literacy
- Frailty & Geriatric Syndromes

Organizational Intervention: The Fall Risk Reduction Coordinating Team

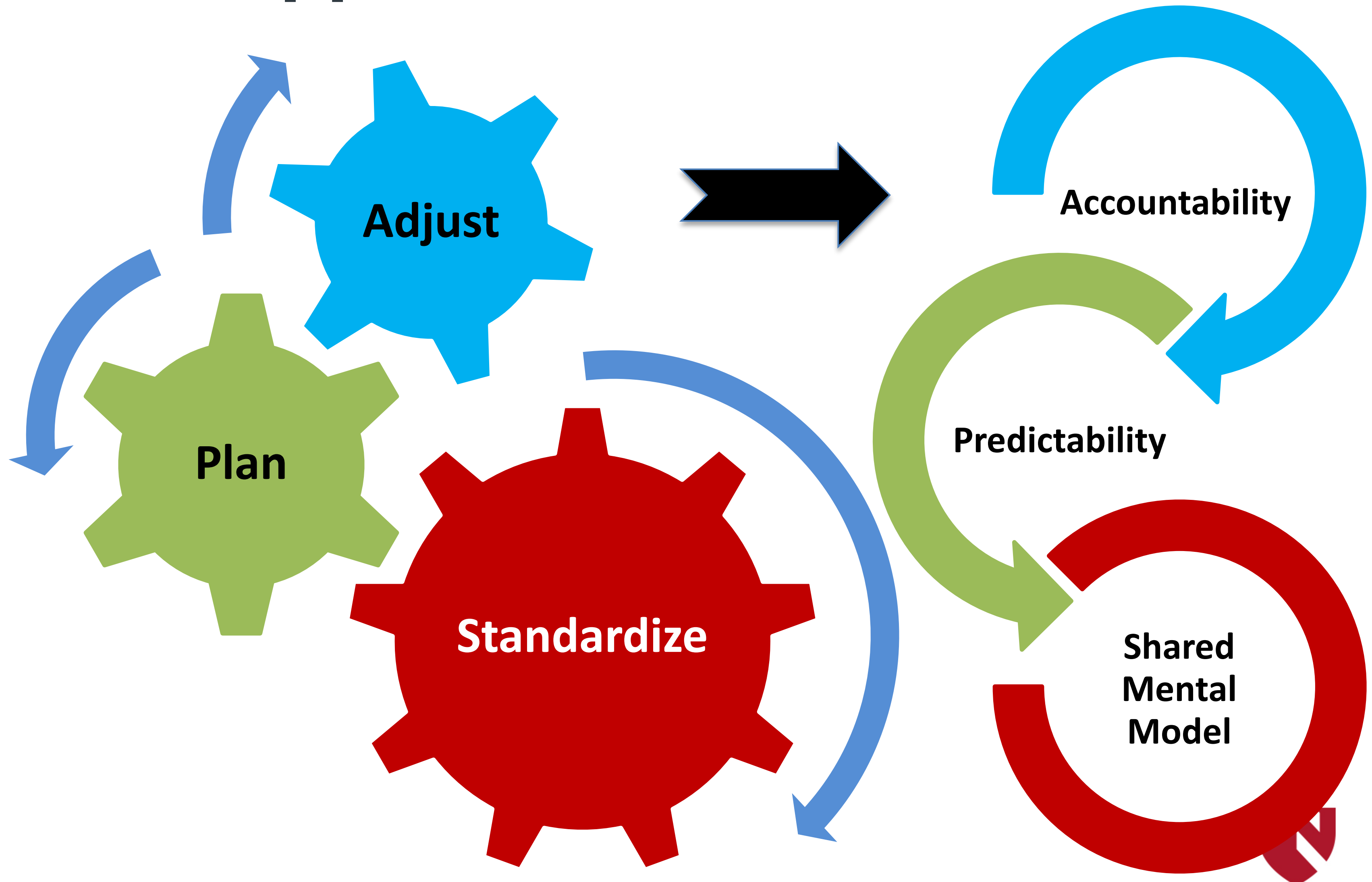
- Who is on the team?
  - CNA, RN, pharmacist, PT/OT, quality improvement, senior leader
- Why do we need a team?
  - Manage resources
  - Coordinate fall risk reduction program and interventions
  - Hold staff accountable for reliably implementing evidence-based interventions
  - Span location, status/hierarchy, and knowledge boundaries across disciplines



http://teamstepps.ahrq.gov/

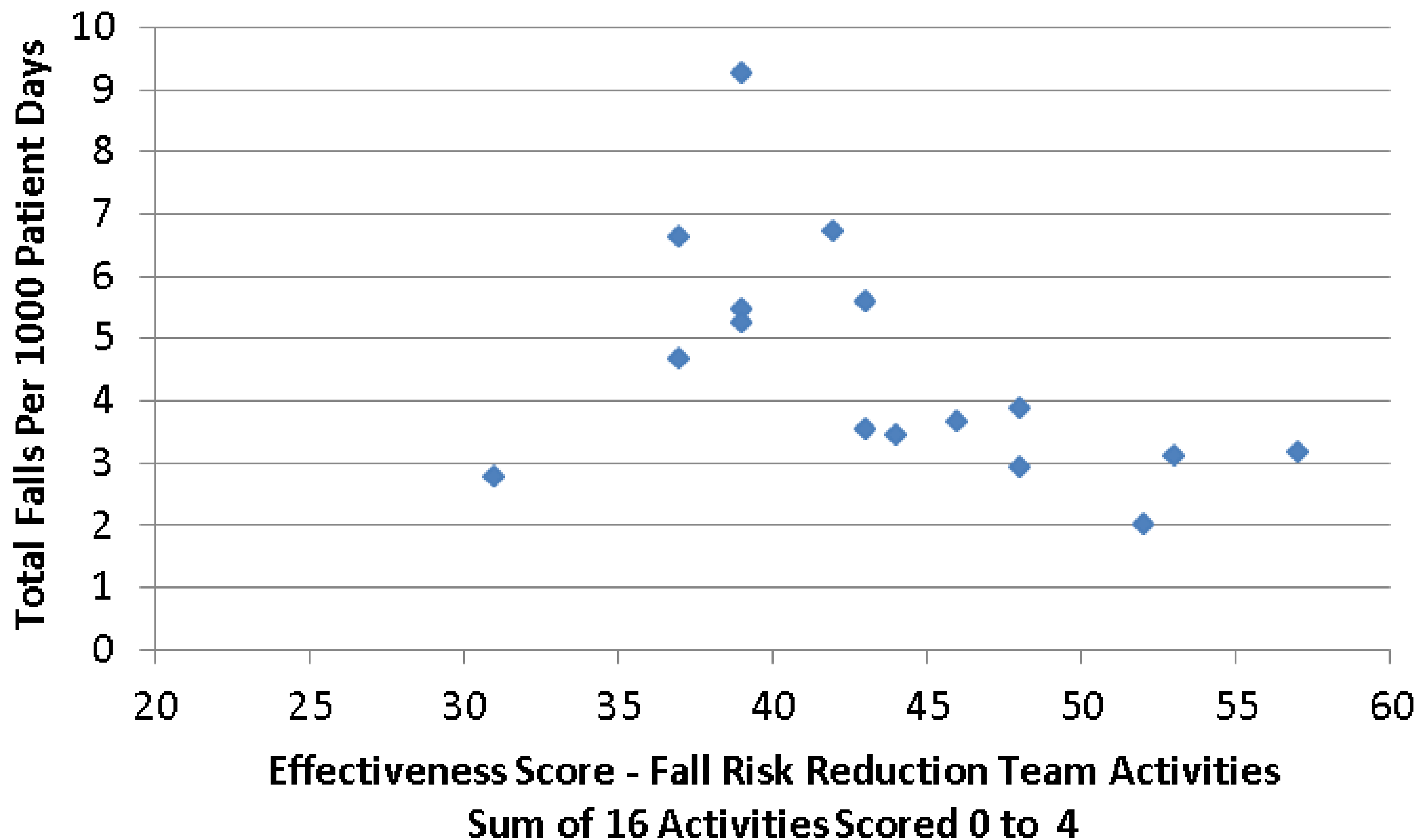
St. Francis Memorial Hospital Fall Risk Reduction Coordinating Team

Why team coordination to support fall risk reduction?



(DeChurch et al., 2009; Okhuysen et al., 2009)

Effective Fall Risk Reduction Teams Make Healthcare Safer

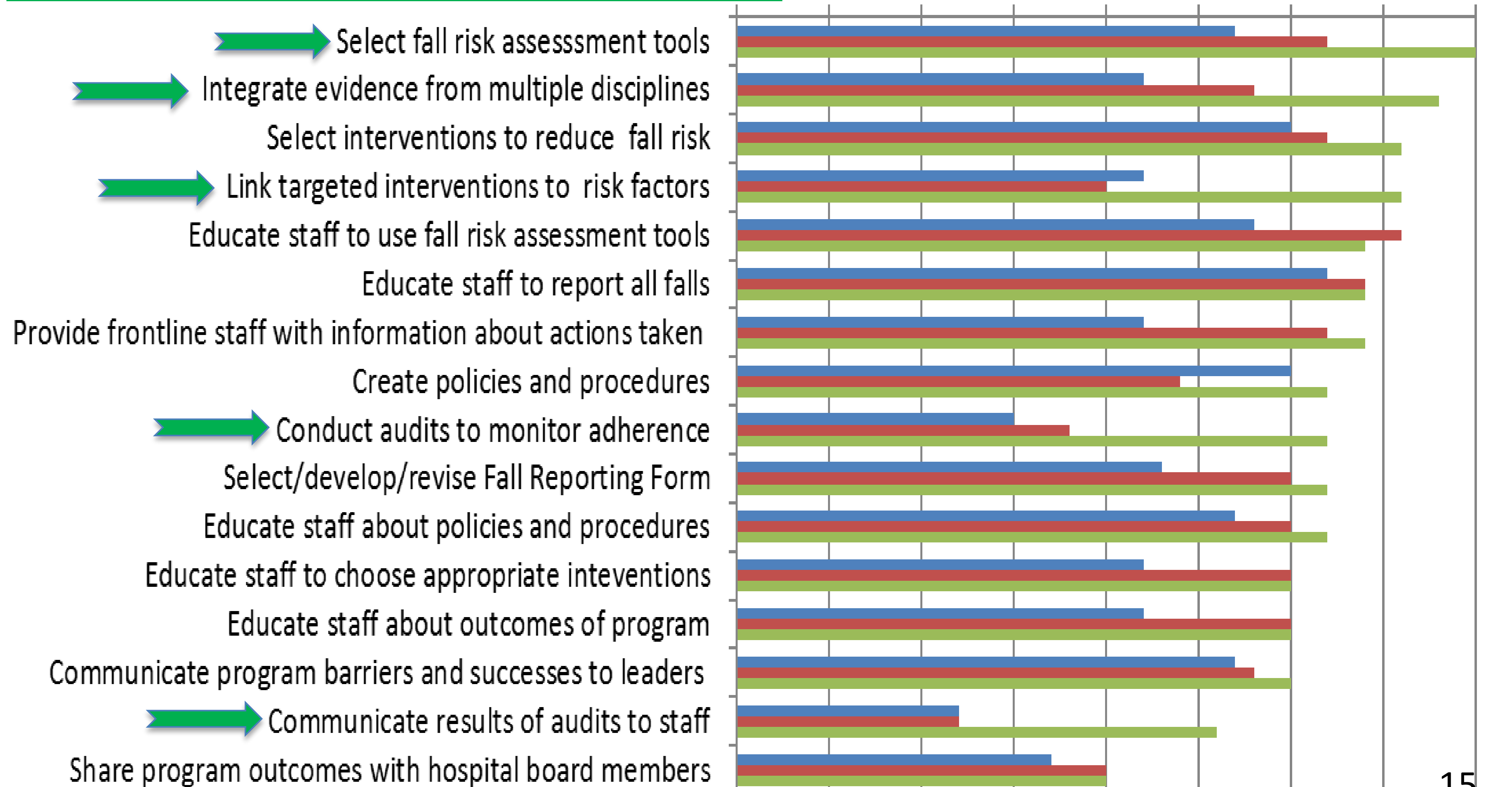


Effectiveness of Fall Risk Reduction Coordinating Teams

Low (N=6, Mean=37) Moderate (N=5, Mean=43.6) High (N=5, Mean=51.6)

What do effective fall risk reduction coordinating teams do?

(0=Not Done, 1=Not Effective to 4 =Highly Effective)



Integrating Evidence from Physical Therapy

Impact of Pathophysiology on Movement

Impact of Physical Impairments on Movement

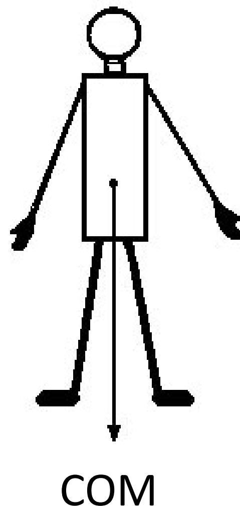
Biomechanical Basis of Movement

Psychometric Properties of Measurement

Decrease Fall Risk

Biomechanical Basis of Movement: Balance

Balance is the condition in which all the forces acting on the body are balanced in such a way that the center of mass (COM) stays within the limits of stability (LOS), which is dependent upon the base of support (BOS). (O'Sullivan & Schmitz, 2007, p. 249)



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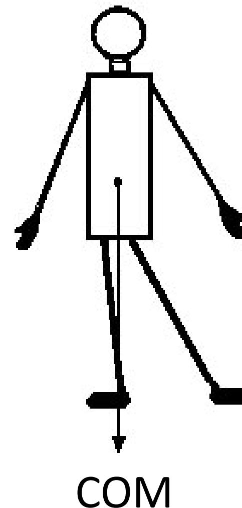

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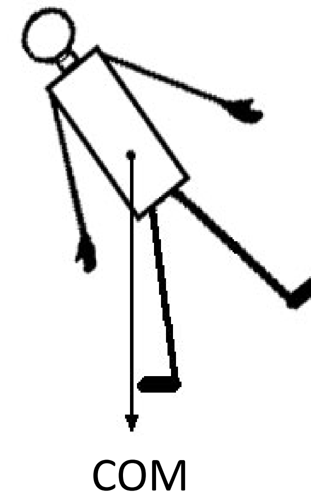


COM

Photo Credit: www.ycgf.org

Evidence Linked to Targeted Interventions

As members of a fall risk reduction coordinating team, physical therapists:

- Provide annual education and competency assessment for safe transfers and mobility
- Participate in audits of bedside interventions and feedback to staff
- 16 mobility and transfer training videos available http://www.unmc.edu/patient-safety/capturefalls/tool-inventory.html

Lesson Learned: Focus on Making it Easier to Assist Mobility

Unassisted falls MORE likely to result in injury and represent system failure

Association Between Assistance and Injury for 353 Adult Patient Falls Reported by 17 Small Rural Hospitals 8/12 - 7/14

Moderate-Major | Minor | None

	Assisted (n=90)	Unassisted (n=263)
None	80.0%	64.3%
Minor	17.8%	31.2%
Moderate-Major	2.2%	4.6%

*p=.021 Chi-Sqare Test

Lesson Learned: Focus on Making it Easier to Assist Mobility

All other factors being equal, these factors are associated with the OUTCOME of FALLING UNASSISTED…

Patient Characteristics

Age ≥ 65 (OR 2.55)
Cognitive impairment (OR 3.70)

System Characteristics

In the bathroom (OR 1.70)

Gait belt NOT identified as an intervention (OR 6.97)

Lesson Learned: Prevent Injury

All other factors being equal, these factors are associated with the OUTCOME of FALL RESULTING IN INJURY…

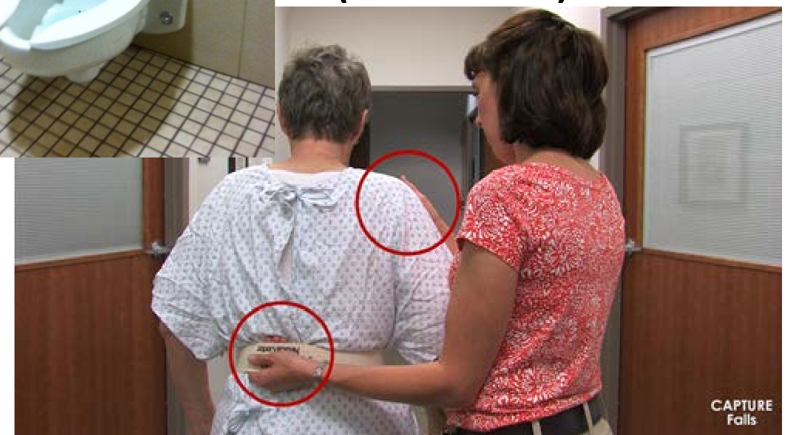
Patient Characteristics

Age ≥ 65 (OR 2.55)

System Characteristics

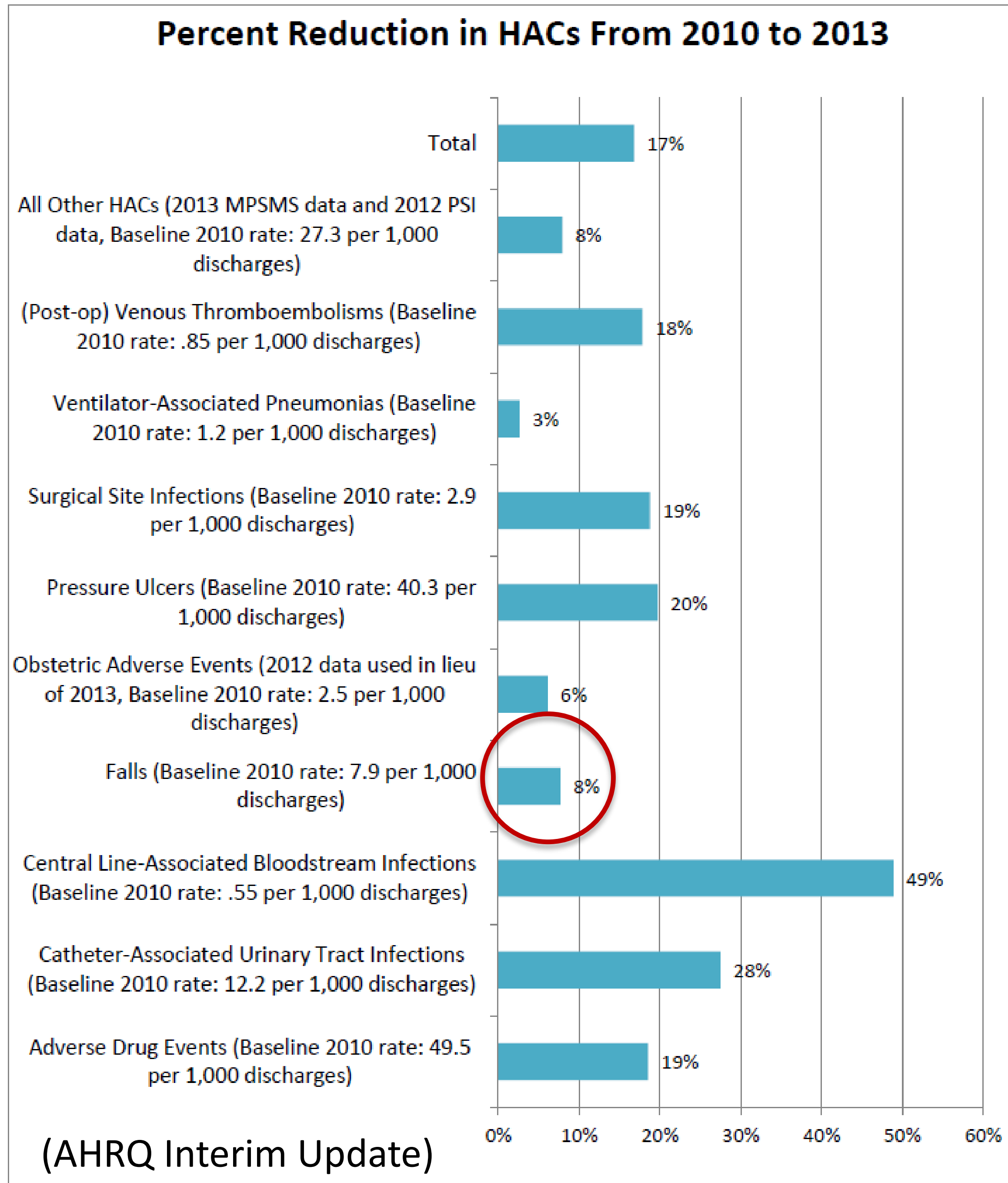
Being in the bathroom (OR 2.48)

NOT Doing this (OR 3.65)



Summary

Improvement in decreasing fall-related injury may require coordination of fall risk reduction by an interprofessional team that includes physical therapists who improve the reliability of assisted falls



References

AHRQ. Interim Update on 2013 Annual Hospital-Acquired Condition Rate and Estimates of Cost Savings and Deaths Averted From 2010 to 2013. Available at http://www.ahrq.gov/professionals/quality-patient-safety/pfp/interimhacrate2013.html. Accessed March 22, 2015.

DeChurch LA, Mathieu JE. Thinking in terms of multiteam systems. In: Salas E, Goodwin GF, Burke CS, eds. Team Effectiveness in Complex Organizations: Cross-Disciplinary Perspectives and Approaches. New York: Taylor & Francis Group; 2009:267-292.

Edmondson AC. Teaming: How Organizations Learn, Innovate, and Compete in the Knowledge Economy. San Francisco: John Wiley & Sons; 2012.

Jones KJ, Venema D, Nailon R, Skinner A, High R, Kennel V. Shifting the paradigm: An assessment of the quality of fall risk reduction in Nebraska hospitals. J of Rural Health. Published online Sept. 2, 2014; DOI: 10.1111/jrh.12088.

Mathieu JE, Marks MA, Zaccaro SJ. Multi-team systems in N. Anderson, D. Ones, HK Sinangil, & C. Viswesvaran (Eds.), International handbook of work and organizational psychology. London, UK: Sage Publications; 2001: 289-313.

References (Cont'd)

Miake-Lye IM, Hempel S, Ganz DA, Shekelle PG. Inpatient fall prevention programs as a patient safety strategy: a systematic review. Ann Intern Med. 2013;158:390-396.

Okhuysen GA, Bechky BA. Coordination in Organizations: An Integrative Perspective. The Academy of Management Annals. 2009;3:463-502. Oliver D, Daly F, Martin FC, McMurdo ME. Risk factors and risk assessment tools for falls in hospital in-patients: A systematic review. Age Ageing. 2004;33:122-130.

O'Sullivan SB, Schmitz TJ. Physical Rehabilitaiton (Fifth Edition). Philadelphia: F.A. Davis Company; 2007.

Staggs VS, Mion LD, Shorr RI. Assisted and unassisted falls: different events, different outcomes, different implications for quality of hospital care. Jt Comm Jrnl. 2014;40: 358-364.

Zaccaro SJ, Marks MA, & DeChurch LA. Multiteam systems: An introduction. In SJ Zaccaro, MA Marks, & LA DeChurch (Eds.), Multiteam systems: An organization for dynamic and complex environments. New York, NY: Taylor & Francis Group;2012:3-32.

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BREAKTHROUGHS FOR LIFE.®

University of Nebraska Medical Center

Ohio Children's Hospitals' Solutions for Patient Safety

Falls: Lessons Learned in Sustaining The Gains

Falls Prevention Bundle Overview

Nomenclature

- **SPS Prevention Bundle** - Terminology used to describe compiled care elements for each Hospital Acquired Condition within the SPS network
  - ***SPS Standard Element***: Strong evidence suggests that implementation of this element is associated with significant decrease in patient harm; all SPS hospitals should implement and measure reliability of this element
  - ***Recommended Element***: Preliminary data and clinical expert opinion support the implementation of this element; SPS hospitals should strongly consider implementing and measuring reliability of this element

Prevention Bundle Element	Care Descriptions
Standard Elements	
Screen patients for risk of fall	• Screen on admission and at interval(s) defined by the selected fall risk assessment tool. • Consider using a fall risk assessment tool that includes variables specific to the pediatric population.
Identify and communicate patients at risk for falls & injury	• Identify patients are risk for falls by signage, armbands , or other identifiers • Communicate fall risk at handoff: o At shift change (nurse to nurse) o At time of transfer in care (unit to unit) o Nurse to other (Child Life specialist, Radiology Technician, etc.)
Ensure a safe environment	• Ensure unused equipment is removed and pathways to door and bathroom are clear • Clutter in room is minimized • Non-skid footwear for ambulating patients • Call light is within reach; orient to use periodically • Use of appropriate sized clothing to prevent tripping • Bed in low position with brakes on • Appropriate sized bed is used (no co-bedding) • Evaluate for gaps in the bed railings that may allow the child to slip between the rails • Wheelchair and commode brakes are locked during transfers

Prevention Bundle Element	Care Descriptions
Standard Elements	
Review of safety protocols with parents/guardians/family	• Parents/guardian/family members have an integral role in a falls risk prevention program • Parent/guardian/family education regarding fall risks of hospitalized children is important. • Educate parents/guardians/family on safe environment
Recommended Elements	
Implement specific mitigation strategies for patients at risk of falls with injury.	• Hourly rounds that include risk identification and prioritizing individualized risk reduction strategies helps to keep patients safe and comfortable by proactively meeting their needs. • Assisting when up and out of bed • 1:1 observation (only when appropriate)

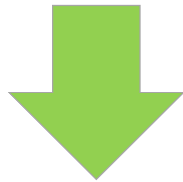
Our Results

Children's Hospitals' Solutions for Patient Safety — Every patient. Every day.

Children's Hospitals' Solutions for Patient Safety (SPS) National Network

Falls (Moderate or Greater Injury) Rate

SPS Network Aggregate



06/15 -Operational Definition change to stay aligned with NDNQI

01/15 –Moved into sustain phase

Falls per 1000 Patient Days

Monthly SPS Rate — SPS Centerline (0.018) — Control Limits

	03/14	04/14	05/14	06/14	07/14	08/14	09/14	10/14	11/14	12/14	01/15	02/15	03/15	04/15	05/15	06/15	07/15	08/15	09/15	10/15	11/15	12/15	01/16	02/16	03/16
# of Falls Events	7	7	6	11	12	10	9	11	7	5	7	5	11	11	10	9	5	11	12	3	10	18	6	8	8
Patient Days	457800	437722	438147	420205	439980	442058	447611	456544	439433	457953	474561	442554	479196	444590	445837	426028	441307	442559	439196	455293	428774	453089	482795	460999	451041
Monthly Network Rate	0.015	0.016	0.014	0.026	0.027	0.023	0.020	0.024	0.016	0.011	0.015	0.011	0.023	0.025	0.022	0.021	0.011	0.025	0.027	0.007	0.023	0.040	0.012	0.017	0.018
# of Hospitals	88	87	88	88	88	88	89	89	88	88	88	88	88	87	88	87	90	89	90	90	88	88	88	87	80

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Operational Definition Change

FALLS NDNQI Changes – September 2014

Falls-Definitional Changes Highlights

Definition of Moderate-Greater Injury

NO CHANGE - Moderate— resulted in suturing, application of steri-strips or skin glue, splinting, or muscle/joint strain

REVISIONS per NDNQI - Major—resulted in surgery, casting, traction, required consultation for neurological (e.g., basilar skull fracture, small subdural hematoma) or internal injury (e.g., rib fracture, small liver laceration), or patients with any type of fracture regardless of treatment, or patients who have coagulopathy who receive blood products as a result of a fall

NO CHANGE - Death—the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall)

Sustaining Falls Gains

Strategies to Keep the Rate Low

Operationally

- Staying compliant to the bundle house-wide
- Continued monitoring and checking
- Putting patient safety above patient experience
- Parent education and engagement

Culturally

- Staying preoccupied with failure
- Being accountable for clear and complete communication
- Support a questioning attitude

Falls Key Driver Diagram

FALLS Template KEY DRIVER DIAGRAM

Project Name: Falls HAC Team
Project Leaders: Hila Collins, Heidi Fields
SPS QIC: Shari Wooton

Revision Date: 12/15/2015

SMART AIM

Reduce the Falls rate centerline of moderate or greater falls by 40% from X to Y per 1000 patient days by mm/dd/yyy

GLOBAL AIM

Eliminate all falls injuries across all pediatric hospitals in in the US

KEY DRIVERS

- Reliable Falls prevention bundle (>90%)
- Data transparency of falls with injuries, and near misses
- Reliable use of risk assessment tool
- Use of QI and HRO Methodology

INTERVENTIONS (Levels of Reliability)

Implement & Increase Reliability to the SPS Evidence Based Prevention Bundle:

1. Screen patients for risk of fall
2. Identify and communicate patients at risk for falls and injury
3. Ensure a safety environment
4. Review of safety protocols with parents/guardians/family
5. Implement specific mitigation strategies for patients at risk of falls with injury

Utilize PDSA and change management cycles to increase reliability care of delivery. (Level 2)

Share data on units briefs, and with senior leadership. (Level 1)

Network Hospital Perspective

A Hospital's Perspective – The Unique Challenges of Pediatrics

- Risk Assessment Tool: Not many validated tools for the use in the pediatric population; Humpty Dumpty and GRAF-PIF are examples
- Keys to Implementation: Consistently done (daily) with strong inter-rater reliability
- Communication of Risk: Multi-media; arm bands, colored headers in the EMR, communication boards, signage outside of the room

The Unique Challenges of Pediatrics (Cont’d)

- Environment: Right size clothing that does not cause tripping, clutter in the rooms (TOYS EVERYWHERE)
- Crib, toddler bed or hospital bed
- Co-bedding
- Toddler vs. Adolescent: Developmental issues
- Parent Education: Many pediatric falls occur with the parent in attendance

Questions and Answers

Please share your questions for our presenters!

Key Takeaways

- **Know the similarities and differences between addressing falls prevention in adult and pediatric populations.** Address the unique challenges of each in your hospital-level interventions.
- **Educate patients and families on falls prevention strategies** and engage them in the interventions.
- **Ensure that protocols and interventions are implemented reliably** by staff and hold them accountable for compliance. Monitor the use of implemented protocols regularly to identify and address gaps.
- **Implement an interdisciplinary team approach to falls prevention** that will facilitate the reliable use of interventions. Involving nurses, physical therapists, pharmacists, dieticians, Child Life, and others involved in the care process will ensure that interventions are coordinated and applied consistently.
- When addressing falls prevention, **prioritize patient safety over patient experience**.

Participant Polling

Please share your feedback!

CMS Leadership

Dennis Wagner, MPA
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Partnership for Patients Co-Lead
Centers for Medicare & Medicaid Services

Paul McGann, MD
Chief Medical Officer for Quality Improvement
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Next Pacing Event

Thursday, June 9

3:00 – 4:00 PM ET