bsi.

What Works?
Best Practices for Reducing Patient Handling Injuries

Rachel Michael MS, CPE, CHSP
Principal Consultant

bsi.

Webinar Logistics

- All participants are muted

- 45-minute presentation

- 10 minutes Q&A session
  - Use the comments/chat box on your sidebar to submit questions
  - We'll respond to as many questions as we can in the Q&A session so we can end on time!

- Web/Phone Conference Issues or Concerns
  - If you are having difficulty seeing/hearing the presentation, please submit a question using the Comments box
  - A short evaluation survey will be sent after the session – please help us with your feedback!

- All attendees will receive a link to the recorded webinar and presentation slides within a day or two of the webinar

bsi.

Today's Speakers

Rachel Michael, CPE, CHSP, Principal Consultant, BSI EHS Services and Solutions

Rachel brings over 18 years of experience in developing ergonomics and injury prevention strategies and solutions across a wide range of industries. She is both knowledgeable and passionate about systems improvement -- the key to effective, sustainable injury reduction -- leveraging the capabilities, limitations and characteristics of their human components for safe, productive and efficient outcomes. For the past 13 years, Rachel has worked to reduce risk and improve productivity with clients of global insurance brokers Aon and Marsh and McLennan. In 2017, she was the President of the Board of Directors for the Board of Certification in Professional Ergonomics (BCPE). She has also been a technical writer for OSHA and ergonomics related publications and is actively involved in the ASSE Ergonomics Practice Specialty as well as a program director with the National Ergonomics Conference.

Agenda

- SPH Programs as a Best Practice

- Cost and Value in SPH Programs

- Common Program Pitfalls and Solutions

- Case study

- Q & A

Why have a Safe Patient Handling (SPH) program?

- A safe patient handling program or policy, written from the perspective of both employee and patient injury prevention, is a recognized best practice.

- In some cases, such a program may be legislatively mandated.

- Programs will differ between types of facilities and level of care.

- May use different nomenclature.

- Known benefits from facilities who have already implemented a SPH program:
  - Reduced workers' compensation costs
  - Reduction in number of lost work days
  - Reduction in frequency of patient falls
  - Reduction in skin tears and pressure ulcers
  - Early patient mobilization reduces risk of complications arising from prolonged bed rest

Known benefits to implementing a SPH program

- Reduction in workers' compensation claims costs- despite increasing incidence of bariatric admissions

- Reduction in lost and restricted work days

- Reduction in employee turnover

- Increased scores on staff engagement surveys

- Improved Functional Independence Measure (FIM) scores as discharge in rehabilitation patients

- Improved care outcomes

Interactive Poll – Does your organization currently have a program/policy directed at employee injury prevention related to patient handling?

bsi.
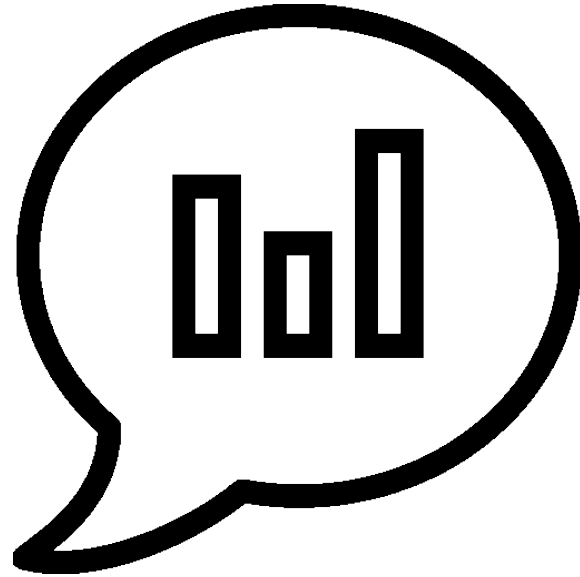
Poll #1

- We have a guideline but it is not enforced as policy.

- We have a comprehensive and enforced policy.

- Individual areas or departments may have a policy but it is not consistent throughout the organization.

- I do not know if we have a policy.

- Other or NA

The Costs of Injuries Related to Patient Handling

- **25% of workers' comp claims** are patient handling related

- The average patient handling-related **claim costs $15,600**

- **12% of all RNs leave** nursing annually due to pain and injuries

The Value of a SPH Program

- When we focus on only the *cost* of employee injury, we may not be adequately capturing the *value* of a SPH program.

- The *value* of the program is key to sustainability and adequate executive or management support.

- Some organizations may not have adequate staff, access or expertise to do multivariate costs/benefit analyses.
  - We may be using an ROI factor from published studies that is not specific to our operation
  - We may be using a spreadsheet type of template where we input expected costs of metrics such as injury numbers, headcount, training time, equipment cost, maintenance and are then given a predicted ROI

- What does a predictive cost/benefit analysis look like?

Best Practices in SPH

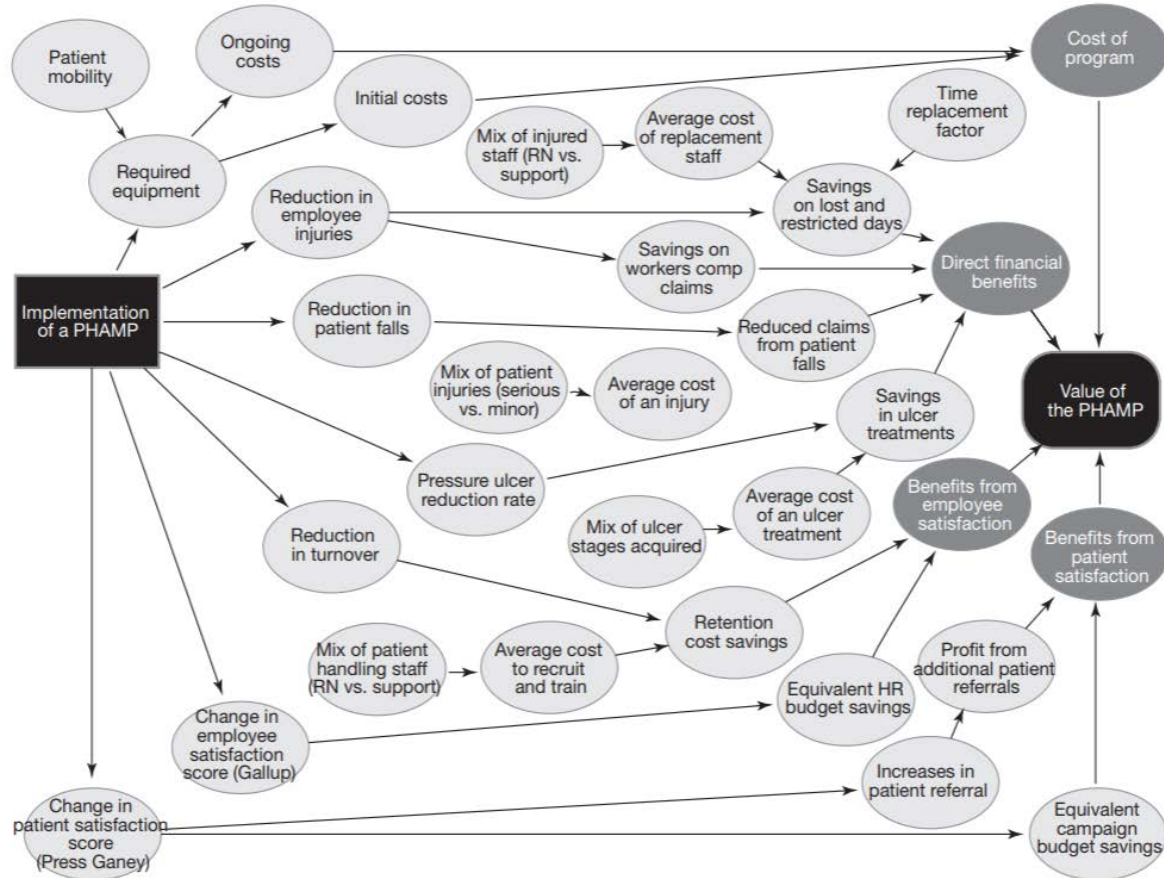<div style="background:teal; color:white;">

## Data Driven Processes in Program Creation

</div>

Predictive Cost/Benefit Analysis

- Charts, charts and more charts – not the patient centered kind.
  - Decision Analyses
  - Influence Diagram
  - Scattergram (scatter diagram)
  - Tornado Chart
  - Waterfall Chart
  - Probability Diagram
  - More than your common ROI calculation

bsi.

Predictive Cost/Benefit Analysis

Predictive Cost/Benefit Analysis
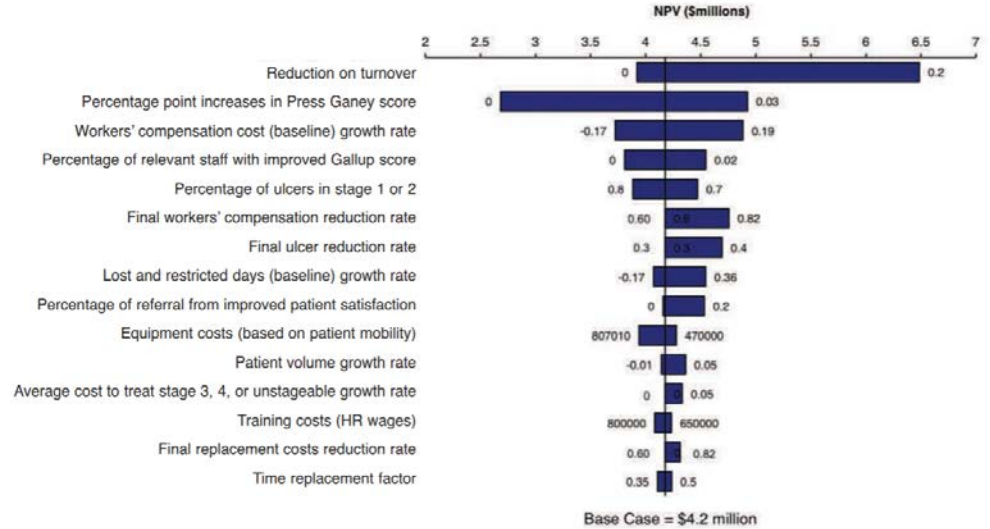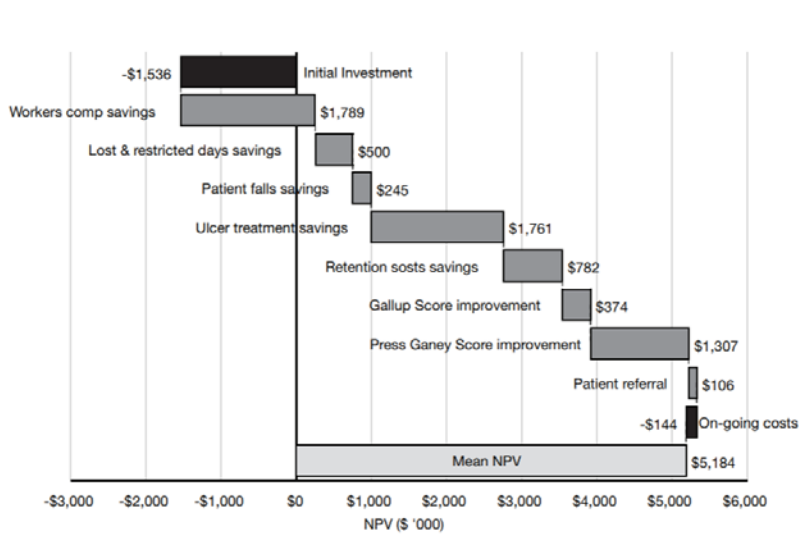
Best Practices in SPH

Data Driven Target to Risk

Common Program Pitfalls

- Program trigger does not match observed behavior and/or program trigger requires end user calculations.

  — Let's look at an example.

Common Program Pitfalls

- Organizational data does not pinpoint root causes or provide enough information to target solutions

    — Let's look at an example.

Claims Coding

- A typical summary of patient handling related employee injury claims.

Part Description	Injury Description	Cause Description
LOWER BACK AREA	MULTIPLE PHYSICAL INJURIES ONLY	STRAIN OR INJURY BY - LIFTING
SHOULDER(S)	STRAIN	STRAIN OR INJURY BY - LIFTING
CHEST	STRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
UPPER ARM	STRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
MULTIPLE HEAD INJURY	CONTUSION	STRAIN OR INJURY BY - STRAIN OR INJURY BY, NOC
LOWER BACK AREA	SPRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - HOLDING OR CARRYING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - HOLDING OR CARRYING
SHOULDER(S)	STRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
LOWER BACK AREA	SPRAIN	STRAIN OR INJURY BY - LIFTING
CHEST	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	SPRAIN	STRAIN OR INJURY BY - LIFTING
THUMB	NO PHYSICAL INJURY	STRAIN OR INJURY BY - LIFTING
SHOULDER(S)	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - LIFTING
SHOULDER(S)	STRAIN	STRAIN OR INJURY BY - LIFTING

Claims Coding

- No standardized coding methodology exists focusing on sub-category of activity type for patient handling related injuries.

- In the US there is a lack of uniformity across casualty claim service organizations related to SPH injury identifiers which prohibit the ability to effect change through either benchmarking or modeling at the local, regional and national levels.

- NIOSH and the ASPHP have participated in exercises to review the potential for standardized coding.

- This can be implemented at your organization by working through your casualty insurance carrier or third party administrator.

bsi.

Claims Coding – a Proposed Standardization

| Type of Movement/Handling	Activity/Purpose	Assistive Device Used
1. Standing to sitting 2. Sitting to standing 3. Reposition in chair 4. Reposition in bed 5. Seat to seat transfer 6. Supported walking 7. Floor recovery 8. Fall prevention 9. Rolling/turning in bed 10. Lying to sitting in bed 11. Lateral transfer 12. Limb holding 13. Transfer/vehicle	1. Toileting 2. Bathing or washing 3. Personal care/feeding, dressing (ADLs) 4. Transport in facility 5. Admission/discharge 6. Specific treatment – emergency 7. Specific treatment – routine 8. Rehabilitation 9. Extended mobility outside facility	1. Yes 2. No

Claims Coding – a Proposed Standardization

- Outcomes from use have included determining that repositioning was a larger than believed root cause factor. The prior belief was that lateral transfer or fall was highest risk.

- Organization then created an algorithm to drive standardized work and remove decision making in patient repositioning.

- Staff reported feeling they had more options than they previously believed and did not understand some equipment capabilities.

Best Practices in SPH

Patient Mobility is a Key Trigger

bsi.

Interactive Poll – How is your organization triggering participation in a SPH?
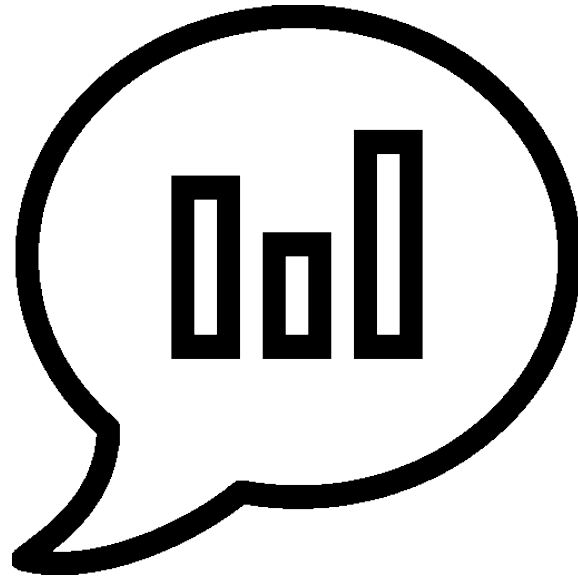
Poll #2

- We use a weight limit such as 35 or 50 pounds above which the program is triggered.

- We use a daily (or more frequent as required) ambulation or mobility score to determine if SPH program is triggered.

- We require compliance with equipment use without any additional trigger.

- We use a mix of these options.

- Other or NA

Common Program Pitfalls

- Program trigger does not match observed behavior and/or program trigger requires end user calculations.

- Program trigger does not include mobility but rather focuses on a weight limit.

  - Let's look at some examples.

25

Program Triggers

All Admit Weights ≥50 Pounds
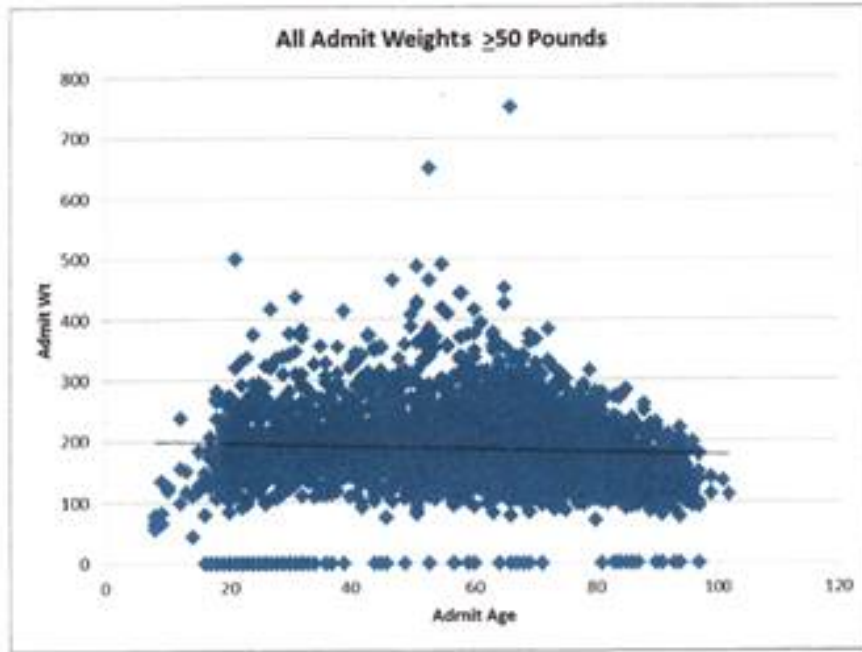
- Use of multiple people or equipment was occurring at a low rate.

- In a one year time period a total of 2,376 patients were admitted with weights ranging between 150-770 lbs.

- According to the existing policy requiring no employee to lift over 50lbs, almost all admitted patients should have been evaluated for a lift plan.

Program Triggers

- Example Program Requires 2 people if more than 35lbs will be lifted, exerted, pushed or pulled.

- How does our RN, Surgical Tech, etc. calculate difference between force and weight and how is weight calculated?

- How is this employee empowered to get staffing help? What is the expected response?

Weight Limits	Number of Staff or MLD
<35lbs	1 person
35-100lbs	2 people
>100lbs	MLD Required

Program Triggers – why is mobility missing?

- Multiple factors influence why a mobility rating is not more consistently used including:
    - Limitations of common assessment tools to Physical Therapy (PT) expertise or setting and not for nursing staff or bedside care
    - Nurse training in assessment/equipment solutions is inconsistent
    - Previous patient feedback (either individual or systemic) relayed a negative experience with mobility assessment and assistance
    - "Fall Risk" is blanket term which reduces compliance

Example Nurse Mobility Assessment

Test	Task	Response	Fail — Choose most appropriate equipment/device(s)	Pass
Assessment Level 1 Assessment of: • Trunk strength • Seated balance	**Sit and shake:** From a semi-reclined position, ask patient to sit upright and rotate* to a seated position at side of bed; *may use bedrail.* Note patient's ability to maintain bedside position. Ask patient to reach out and grab your hand and shake, making sure patient reaches across his/her midline.	**Sit:** Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance longer than 2 minutes (without caregiver assistance). **Shake:** Patient has significant upper body strength, awareness of body in space, and grasp strength.	**MOBILITY LEVEL 1** • Use total lift with sling and/or repositioning sheet and/or straps. • Use lateral transfer devices, such as roll board, friction-reducing device (slide sheets/tube), or air-assisted device. **Note:** If patient has **strict bed rest or bilateral non-weight-bearing** restrictions, **do not proceed** with the assessment; patient is **MOBILITY LEVEL 1**.	Passed Assessment Level 1 = Proceed with Assessment Level 2.
Assessment Level 2 Assessment of: • Lower extremity strength • Stability	**Stretch and point:** With patient in seated position at side of bed, have patient place both feet on floor (or stool) with knees no higher than hips. Ask patient to stretch one leg and straighten knee, then bend ankle/flex and point toes. If appropriate, repeat with other leg.	Patient exhibits lower extremity stability, strength and control. **May test only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).**	**MOBILITY LEVEL 2** • Use total lift for patient unable to weight-bear on at least one leg. • Use sit-to-stand lift for patient who can weight-bear on at least one leg.	Passed Assessment Level 2 = Proceed with Assessment Level 3.
Assessment Level 3 Assessment of: • Lower extremity strength for standing	**Stand:** Ask patient to elevate off bed or chair (seated to standing) using assistive device (cane, bedrail). Patient should be able to raise buttocks off bed and hold for a count of five. May repeat once. *Note:* Consider your patient's cognitive ability, including orientation and CAM assessment if applicable.	Patient exhibits upper and lower extremity stability and strength. **May test with weight-bearing on only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast). If any assistive device (cane, walker, crutches) is needed, patient is Mobility Level 3.**	**MOBILITY LEVEL 3** • Use non-powered raising/stand aid; default to powered sit-to-stand lift if no stand aid is available. • Use total lift with ambulation accessories. • Use assistive device (cane, walker, crutches). *Note:* Patient passes Assessment Level 3 **but requires assistive device** to ambulate or **cognitive assessment** indicates poor safety awareness; **patient is MOBILITY LEVEL 3**.	Passed Assessment Level 3 **AND no assistive device needed** = Proceed with Assessment Level 4. **Consult with physical therapist when needed and appropriate.**
Assessment Level 3 Assessment of: • Standing balance • Gait	**Walk:** Ask patient to march in place at bedside. Then ask patient to advance step and return each foot. Patient should display stability while performing tasks. Assess for stability and safety awareness.	Patient exhibits steady gait and good balance while marching and when stepping forward and backward. Patient can maneuver necessary turns for in-room mobility. Patient exhibits safety awareness.	**MOBILITY LEVEL 3** If patient shows signs of unsteady gait or **fails Assessment Level 4**, refer back to **MOBILITY LEVEL 3**; **patient is MOBILITY LEVEL 3.**	**MOBILITY LEVEL 4** MODIFIED INDEPENDENCE **Passed = No assistance needed to ambulate;** use your best clinical judgment to determine need for supervision during ambulation.

# Best Practices in SPH

<div style="background:teal;">

Communication to Patient and Family

</div>

Common Program Pitfalls

- Care team feels patients and/or family are upset by the use of assistance devices and choose not to use them.

- Transparent communication with patients/family about policy and visual reminders at point of transfer can reduce program non-compliance. Consider a brief patient centered communication around the program.
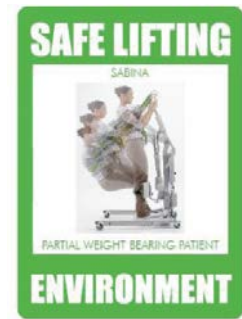
Interactive Poll – Does your organization have standard patient centered literature on the SPH?
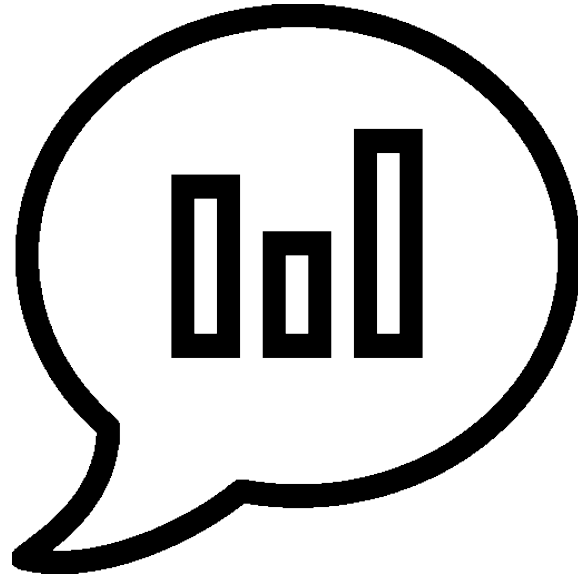
Poll #3

- Yes, it is part of the admitting information and/or posted on the patient care board for every patient and utilizes native language and/or pictograms.

- Yes, but we would have to find and print it out per a patient or family request and/or it may be available but in limited languages.

- No we do not.

- I don't know or NA

Best Practices in SPH

Standardized Work – Training and Processes

34

Best Practices in SPH

Support Through All Levels

bsi.

Best Practices in SPH
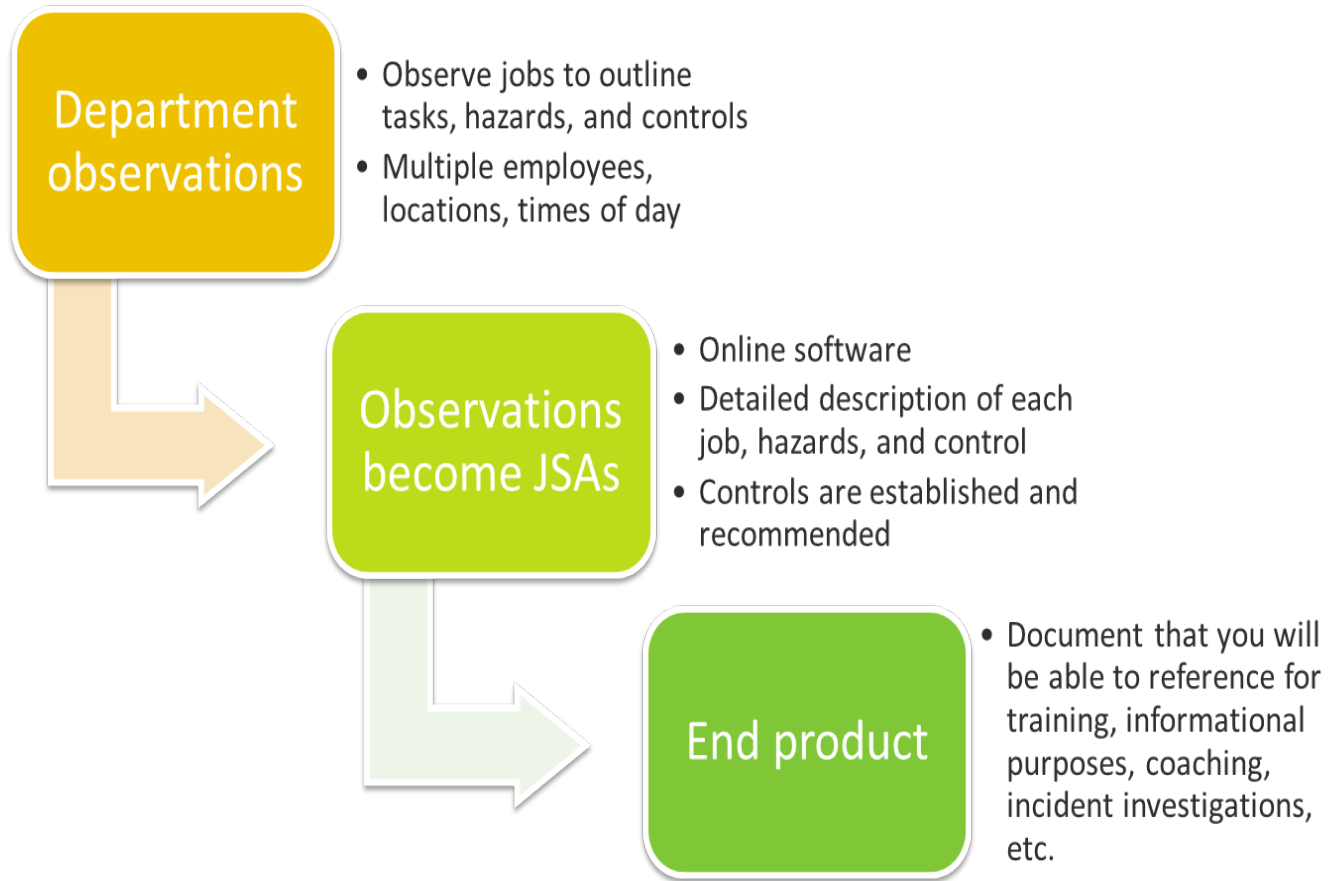

Case Study

36

Case Study

Situation

- Step-down ICU with 40-60 employees
  - Department TCIR of 11.5
  - Significant morale and staffing issues
  - Risks included repositioning and moving patients with limited mobility

- Approach
  - Leadership kick-off
  - JHAs
  - Root Cause Analysis Exercise
  - Brainstorming session

Case Study

Process Review

Department observations
- Observe jobs to outline tasks, hazards, and controls
- Multiple employees, locations, times of day

Observations become JSAs
- Online software
- Detailed description of each job, hazards, and control
- Controls are established and recommended

End product
- Document that you will be able to reference for training, informational purposes, coaching, incident investigations, etc.

Case Study

Solutions

SPH Equipment located in every room

Process alignment with OR and ICU

Staff Training

Contests

Communication and engagement through culture

Reference documents

bsi.

Case Study

Improved Outcomes

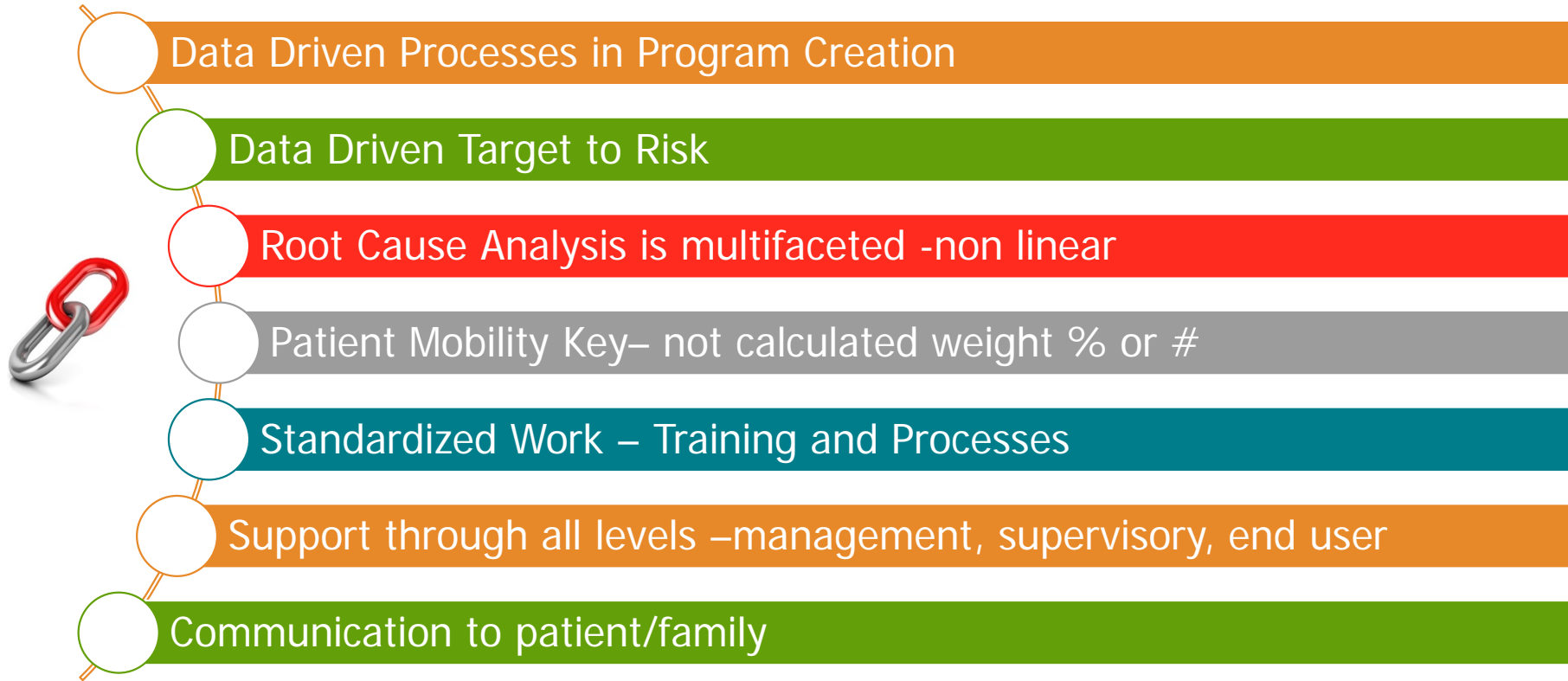100% reduction in patient mobilization injuries

Continued focus on risk identification

Several awards for their performance and 25 months to date of zero related injury

Summary Best Practices in SPH

Data Driven Processes in Program Creation

Data Driven Target to Risk

Root Cause Analysis is multifaceted -non linear

Patient Mobility Key– not calculated weight % or #

Standardized Work – Training and Processes

Support through all levels –management, supervisory, end user

Communication to patient/family

bsi.

Resources and References

1. Facility Guidelines Institute - https://www.fgiguidelines.org/wp-content/uploads/2015/08/FGI_PHAMA_whitepaper_042810.pdf

2. American Nurse Today Resource - https://americannursetoday.com/wp-content/uploads/2014/07/ant9-Patient-Handling-Supplement-821a_LOW.pdf

3. Coding Patient Handling Injuries - http://www.asphp.org/wp-content/uploads/2011/05/Safe-Patient-Handling-and-Mobility-Claims-Coding-A-Pragmatic-and-Functional-Approach-V18-7.pdf

Questions?

Rachel Michael MS, CPE, CHSP
Principal Consultant
Rachel.Michael@bsigroup.com
408.790.9272

bsi.