# Table of Contents: Back Injury Prevention for Healthcare Professionals

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</table>
  - Why the WISER BIP course is important for back injury prevention           |
# Detailed Agenda: Hour 1

<table>
<thead>
<tr>
<th>Instructor will:</th>
<th>Participants will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Conduct welcome and introductions</td>
<td>- Arrive, enter classroom</td>
</tr>
<tr>
<td>- Screen for latex allergy</td>
<td></td>
</tr>
<tr>
<td>- Ask anyone with a physical limitation to privately inform the instructor</td>
<td></td>
</tr>
<tr>
<td>- Review objectives and significance of the training in the on-line course</td>
<td>- Review objectives and significance of the training</td>
</tr>
<tr>
<td>- The average age of nurses in the US is 48 years of age</td>
<td>- Improve patient transfer skills according to a patient transfer protocol</td>
</tr>
<tr>
<td>- 80% of nurses will suffer from at least one musculoskeletal injury in their career.</td>
<td>- Improve knowledge of how musculoskeletal injury occurs during patient transfer</td>
</tr>
<tr>
<td>- The cost of back injury in US is 50 billion overall/ 16 billion cost for nurses and nurses aides (UPMC cost is 6-7 million annually)</td>
<td>- Participate in simulated patient transfer events to develop safe and effective patient transfer skills</td>
</tr>
<tr>
<td>- This course was developed to make patient transfer consistent and safe for both providers and patients</td>
<td>- Practice effective communications skills during transfer training</td>
</tr>
<tr>
<td>- We are also following injury rates post simulation course</td>
<td>- Evaluate simulation educational approaches as a method for improving patient transfer skills</td>
</tr>
<tr>
<td>- At McKeesport, injury rates were cut in ½ post training</td>
<td></td>
</tr>
<tr>
<td>- Distribute and have participants complete confidentiality agreements, photo consents, and CE forms (if being used)</td>
<td>- Complete confidentiality agreements, photo consents and CE forms (if being used)</td>
</tr>
<tr>
<td>- Watch WISER video and describe the role of WISER in health system</td>
<td>- Open wireless laptop, sign-in to WISER site</td>
</tr>
<tr>
<td>- Role is to improve patient safety through simulation, education, and research</td>
<td>- Complete pre-class survey and quiz.</td>
</tr>
<tr>
<td>- Describe value of simulation education (see Instructor Support Materials)</td>
<td></td>
</tr>
<tr>
<td>- Direct participants to open wireless laptops and sign on to WISER site</td>
<td>- Tour simulation facility, orient to training rooms</td>
</tr>
<tr>
<td>- Direct participants to learning management system site and have them complete pre-class survey and quiz.</td>
<td>- Form teams of 3-6 providers (ideal = 4)</td>
</tr>
<tr>
<td>- Provide overview of simulation facility, conduct brief tour, orient to training rooms and simulator capability</td>
<td>- Proceed to training room</td>
</tr>
<tr>
<td>- Discuss simulation etiquette: professional, serious, respectful environment</td>
<td></td>
</tr>
</tbody>
</table>
### Detailed Agenda: Hour 2

<table>
<thead>
<tr>
<th>Instructor will:</th>
<th>Participants will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Select two pre-instruction (cold) moves, prepare mannequins with T-shirt, armband and props</td>
<td></td>
</tr>
<tr>
<td>o Typically cold moves are bed to gurney (btg) and up in bed (uib)</td>
<td>☐ Read the scenario ‘stem’ from the monitor</td>
</tr>
<tr>
<td>☐ Direct team leader to read the scenario ‘stem’ from the monitor</td>
<td>☐ Perform two pre-instruction moves with no initial direction. Inform instructor when completed.</td>
</tr>
<tr>
<td>☐ Direct teams to move mannequin with no initial direction: State &quot;move the patient as you would on your unit&quot; Have teams perform two ‘cold’ moves</td>
<td>☐ Actively participate in debriefing of the 2nd move</td>
</tr>
<tr>
<td>☐ Rate the transfers according to the Patient Transfer Protocol.</td>
<td>☐ Refer to ROK cards and patient transfer protocol during debriefing</td>
</tr>
<tr>
<td>o Control room will ask in-room instructor (via headset) for ‘correct, incorrect, or N/A rating of each patient transfer protocol step.</td>
<td>☐ Proceed to classroom and review on-line materials/videos with group members.</td>
</tr>
<tr>
<td>o Debrief cold moves only after the 2nd has been completed.</td>
<td>☐ Participate in question &amp; answer session</td>
</tr>
<tr>
<td>o Verify that the debriefing log for both moves is saved in the SimMan software system. Hit debrief and then ‘Save-as’.</td>
<td></td>
</tr>
<tr>
<td>☐ Conduct debriefing of the 2nd scenario. Start with a positive statement and then ask the team to report on the transfer- “Tell me about the move”</td>
<td></td>
</tr>
<tr>
<td>☐ Introduce patient transfer protocol- hand out the Ring of Knowledge (ROK) cards.</td>
<td></td>
</tr>
<tr>
<td>☐ Use debriefing log to guide further debriefing statements.</td>
<td></td>
</tr>
<tr>
<td>☐ Attempt to draw out the team during debriefing, have their statements drive the conversation.</td>
<td></td>
</tr>
<tr>
<td>o Start video of the actual ‘move’ step and any others marked incorrect</td>
<td></td>
</tr>
<tr>
<td>☐ Direct participants to proceed to classroom and review on-line materials/videos with group.</td>
<td></td>
</tr>
<tr>
<td>☐ Present/review:</td>
<td></td>
</tr>
<tr>
<td>o Patient transfer protocol</td>
<td></td>
</tr>
<tr>
<td>o Myths and facts in back injury</td>
<td></td>
</tr>
<tr>
<td>o Why adhering to the PTP is important</td>
<td></td>
</tr>
<tr>
<td>o Emphasize value of effective team performance</td>
<td></td>
</tr>
<tr>
<td>o Patient transfer videos</td>
<td></td>
</tr>
<tr>
<td>o Body mechanics videos</td>
<td></td>
</tr>
<tr>
<td>☐ Answer participant questions</td>
<td></td>
</tr>
</tbody>
</table>
### Detailed Agenda: Hour 3

<table>
<thead>
<tr>
<th>Instructors will:</th>
<th>Participants will:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select two post instruction (hot) moves, prepare mannequin with T-shirt, armband and props</td>
<td>Proceed to training room; remain in original team</td>
</tr>
<tr>
<td>- Typically hot moves are gurney to bed (gtb) and side to side (sts)</td>
<td>Read the scenario ‘stem’ from the monitor</td>
</tr>
<tr>
<td>Direct participants to proceed to training room and to remain in the original teams</td>
<td>Perform two mannequin transfers utilizing patient transfer protocol steps and ROK cards. Inform instructor when transfer completed</td>
</tr>
<tr>
<td>Direct team leader to read each scenario ‘stem’ from the monitor</td>
<td></td>
</tr>
<tr>
<td>Instruct teams to perform the two mannequin transfers.</td>
<td>Actively participate in debriefing of each scenario</td>
</tr>
<tr>
<td>- Encourage use of ROK cards and patient transfer protocol</td>
<td>Refer to the patient transfer protocol on the ROK cards during the debriefing</td>
</tr>
<tr>
<td>- Encourage within-team support for correct patient transfer behaviors</td>
<td>Return to classroom</td>
</tr>
<tr>
<td>Rate the transfers according to the Patient Transfer Protocol.</td>
<td>Participate in question &amp; answer session</td>
</tr>
<tr>
<td>- Control room will ask in-room instructor (via headset) for ‘correct, incorrect, or N/A rating of each patient transfer protocol step.</td>
<td>Open wireless laptop, sign-in to WISER site</td>
</tr>
<tr>
<td>- Debrief hot moves after each move has been completed.</td>
<td></td>
</tr>
</tbody>
</table>
|   - Verify that the debriefing log for both moves is saved in the SimMan software system. Hit ‘Save-as’.
| Conduct debriefing of each scenario. Start with a positive statement and then ask the team to report on the transfer- “Tell me about the move” | Complete post-class surveys and quiz                                               |
| Direct participants to refer to the patient transfer protocol and other ROK cards during the debriefing |                                                                                    |
| Direct participants to the classroom                                             |                                                                                    |
| Answer participant questions                                                     |                                                                                    |
| Direct participants to open wireless laptops and sign in to WISER site           |                                                                                    |
| Instruct participants to complete post-class surveys and quiz                    |                                                                                    |
1. **ID Patient & Move Requirement**
   - Complete patient ID process using two unique identifiers
   - Identify need for the move
   - Identify position desired

2. **Assess Patient**
   - Ability to assist (independent, min, mod, max, dependent)
   - Pain and other VS evaluation
   - Assess lines, tubes, drains, IVs

3. **Enlist Personnel**
   - Check patient weight (NIOSH- max lift 50 #, ideal conditions)
   - ANA suggests 35 # max.
   - Await arrival of assistance

4. **Gather Equipment**
   - Appropriate lift device
   - Friction reducing devices (FRD)
   - Positioning aides

5. **Prepare Environment**
   - Lock or recheck lock of tables
   - Height of table adjusted to shortest person
   - Match surface heights
   - Reposition room furniture and equipment to remain ‘square’ to the patient

6. **Communicate to Patient**
   - Involve patient if alert- enlist their help
   - Introduce self and tell them what is about to occur
   - Do not surprise patient with the lift

7. **Communicate to Personnel**
   - Avoid personnel injury by unexpected move
   - Agree upon count
   - Person at patient’s head controls
   - Clear all lines, tubes, drains, IVs

8. **Perform Move**
   - Focus on minimal lift for all personnel
   - Consistently adhere to ergonomic principles (palms up, stay square, feet wide, maintain balance, no twisting, use legs)
   - Maintain control

9. **Reassess Patient**
   - Re-evaluate patient as per # 2
   - Check lines, tubes, drains, IVs
   - Remove lift device from patient

10. **Reset Environment**
    - Secure patient
    - Pad all pressure points
    - Phone, bedside table, call bell, TV control & other necessities within patient reach
    - Return lift device to storage area
Step 1: Identify Patient & Move Requirement

Procedure:
- Obtain proper identification of the patient using two identifiers
- Identify need for move
- Identify move type

Rationale:
- This is a Joint Commission National Patient Safety Goal.
- Whenever a patient is receiving medication or undergoing any type of procedure at least two patient identifiers should be used.
- This is often a component of the patient transfer and the room number may not be one of the identifiers.
- Acceptable identifiers include full name, birth date or other identifying information
- Move and move type data are necessary in order to determine the correct approach

Reference:

Step 2: Assess Patient

Procedure:
- Conduct physical assessment of patient’s ability to help with the move.
- Assessment of other patient specific requirements for the move including pain level assessment.

Rationale:
- Assessment should be comprehensive and include:
  - Reason for the transfer
  - Patient medical condition
  - Patient ability to participate (Assistive level: independent, min, mod, max, dependent)
  - Patient mental status
  - Patient pain level (0-10)
  - Any other patient-specific needs related to the move.

Reference:

Step 3: Enlist Personnel

Procedure:
- Use available references or unit materials that define requirements for workplace moves.
- Use standards for specific devices and number of providers required by patient weight and overall condition.

Rationale:
- Communications to recruit appropriate personnel is of utmost importance
- Patient weight, ability to assist, type of transfer and equipment available are all factors to be considered in this step.

Reference:
Five Principles of Body Mechanics

- **Principle 1: Posture**
  - Chin level and tucked
  - Chest up, not out
  - Stomach in
  - Unlock knees
  - Maintain normal lower back curvature

- **Principle 2: Height**
  - Keep objects close to belt buckle

- **Principle 3: Face the Object**
  - Keep hips and shoulders square to the patient
  - Keep arms close to the side of your body when possible

- **Principle 4: Symmetry**
  - Use both sides of body equally

- **Principle 5: Wide Base of Support**
  - When standing, feet should be at least shoulder width apart
Patient Transfer Scenario Stems

**Scenario 1, Bed to Gurney**- Mr. TJ Smith, a 50 yo 200 # patient is going to the surgical suite for open heart surgery. He has unstable angina, is wearing a holter monitor and is extremely worried and anxious.

**Scenario 2, Up in Bed**- Mr. James White is a male, age 70 who weighs 250 pounds. He has bedsores, is in severe pain from vertebral compression fractures, and is very weak.

**Scenario 3, Side to Side**- Mr. William 'Bill' Jones is a male, age 65 who weighs 300 pounds. He just underwent a right hip replacement a day ago. He is incontinent, very nauseous and has an IV.

**Scenario 4, Gurney to Bed**- Mr. Steve Martin is a male, age 45 who weighs 150 pounds. He just underwent a cardiac cath, is dizzy and wants to see family right away. He has a sandbag in his right groin and has orders to remain in 10 degree HOB up position

**Scenario 5, Gurney to Bed**- Joe Knox is a 45 year old 250 pound patient who is returning from x-ray to your trauma unit. He is suspected to have a fractured right hip. He is responsive but not oriented to place. He is in 2/10 pain. He has an IV in his right arm.

**Scenario 6, Up in Bed**- Mr. Walt Jones is an 80 year old 200 pound patient who has bilateral diabetic induced heel lesions. He is unable to assist. He also has a fracture of his right arm. He has 3/10 pain. A foley catheter is in place.

**Scenario 7, Chair to Bed**- Mrs. Jan Brown is a 300 pound patient s/p gastric bypass. She has an abdominal incision. Not a lot of pain but does have abdominal pressure and nausea. Is alert and can support most of her weight.

**Scenario 8, Bed to Chair**- Mr. John Clark is going for an x-ray via wheelchair. Mr. Clark is a 64 yo, 150 pound patient with history of difficulty swallowing and nausea. Has an IV d/t dehydration.
SBAR Guide

SBAR provides a framework for communication between members of the healthcare team. The model is used to standardize the type of information to be briefed. It sets the expectation that specific informational elements are going to be communicated every time a patient need is discussed.

<table>
<thead>
<tr>
<th>SBAR</th>
<th>SBAR Continued</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Who</strong></td>
<td>Identify the person who can facilitate problem resolution (surgeon, preceptor, OR manager)</td>
</tr>
<tr>
<td><strong>What</strong></td>
<td>Identify the problem and the context</td>
</tr>
<tr>
<td><strong>Where</strong></td>
<td>Clearly identify the location of the problem (OR suite, scrub sink, central sterile etc)</td>
</tr>
<tr>
<td><strong>When</strong></td>
<td>Prioritize your request: Emergency, Urgent, Routine</td>
</tr>
<tr>
<td><strong>How</strong></td>
<td>Determine mechanism of communication (phone, overhead page, pager, email or face to face) and have documents/supplies available for the conversation (OR Consent, patient chart, pick list, paper/pen etc)</td>
</tr>
<tr>
<td><strong>S Situation</strong></td>
<td><strong>State your name and role</strong></td>
</tr>
<tr>
<td></td>
<td>This is Jennifer Smith RN. The situation I am calling about is: I need to transfer Mr. Smith, can you assist?</td>
</tr>
<tr>
<td></td>
<td>Based on his weight and assistive level, we will need ____ providers. I plan to use a ____ lifting device</td>
</tr>
<tr>
<td><strong>B Background</strong></td>
<td><strong>Give a brief synopsis of information leading up to the current problem.</strong></td>
</tr>
<tr>
<td></td>
<td>Mr. Smith is a 50 yo, 200# patient. He is scheduled for a cardiac procedure and has been called.</td>
</tr>
<tr>
<td></td>
<td>Mr. Smith is a full assist, is anxious. He cannot assist as he has been having angina pain with minimal exertion.</td>
</tr>
<tr>
<td><strong>A Assessment</strong></td>
<td><strong>Describe: be problem specific</strong></td>
</tr>
<tr>
<td></td>
<td>Mr. Smith currently has an angina pain level of 1/10</td>
</tr>
<tr>
<td></td>
<td><strong>State any changes from earlier evaluation or assessment:</strong> Mr. Smith’s angina pattern has not changed since admission; however he is being taken to the OR because his level of angina is considered unstable.</td>
</tr>
<tr>
<td><strong>R Request/Recommendation</strong></td>
<td><strong>State what you would like to see done (i.e., orders, equipment, send lab samples obtain x-rays, send help)</strong></td>
</tr>
<tr>
<td></td>
<td>“Could I please have ____ other providers assist with the move? We will be using the ____ lift device.”</td>
</tr>
</tbody>
</table>
Back Injury Prevention for Healthcare Professionals

**ASSISTIVE LEVEL**

- **Minimal Assist**: Patient is assessed as able to support 51% to 75% of body weight during transfer
- **Moderate Assist**: Patient is assessed as able to support 26% to 50% of body weight during transfer
- **Maximal Assist**: Patient is assessed as able to support up to 25% of body weight during transfer
- **Dependent**: Patient is assessed as unable to support any body weight during transfer

Introduction:

The teaching scenarios developed for this program are designed to provide the participants with the opportunity to practice common patient moves and transfers. Participants act as teams to analyze and perform the move or transfer of the patient according to the 4 scenarios outlined below.

Instructions:

- Each scenario can be run in approximately 5-6 minutes.
- The instructor must review the scenario information provided below and the coding guidelines for the handler prior to running them.
- The simulation specialist or instructor should have the simulator ready to run that specific scenario before involving the participants.
- Select or get volunteers for the team(s) of a minimum of 4 and maximum of 6 people.
- Review the background information for the scenario with the team.
- When ready, a team member addresses the patient and the scenario begins running.
- The instructor and simulation specialist observe the activity from the control room, run the simulator and act out the patient’s vocal responses noted in the scenario checklist.
- The instructor scores the scenario (review handler sample on page ???)
- When the team is finished, begin debriefing using the on-line debriefing tool.
- When the debriefing is complete, return to the classroom.

*Special note:* it is often easier to teach the course as a team until the instructor is very comfortable with the material and scoring the moves. One instructor can be in the control room providing the verbal responses and/or scoring in the software, and another can be in the room with the team observing and communicating what they see to the control room. Debriefing can be done jointly.
Scenario 1: Transferring the patient from bed to gurney

Scenario and Prop Checklist:
Bed
Shirt (200 lbs)
Slideboard
Holter monitor
ID band

Verbal Responses: Fully aware
Key Point: Need four people to move the patient.

Background for this scenario: read to participant team before move begins:

<table>
<thead>
<tr>
<th>Patient</th>
<th>TJ Smith</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>50 yrs</td>
</tr>
<tr>
<td>Weight</td>
<td>200 lbs</td>
</tr>
<tr>
<td>Condition</td>
<td>Awaiting open heart surgery and cannot help move himself. He has occasional anginal pain.</td>
</tr>
<tr>
<td>Patient Attachments</td>
<td>Holter monitor</td>
</tr>
<tr>
<td>Emotional Status</td>
<td>Worried, anxious</td>
</tr>
</tbody>
</table>
Scenario 2: Moving patient up in bed

Scenario and Prop Checklist:
Green Armband
Bed
Shirt (250lbs)
ID band

Verbal Responses: Fully aware but in pain.
Key Point: Need five people to move the patient due to weight and inability to help move himself.

Background for this scenario: read to participant team before move begins:

<table>
<thead>
<tr>
<th>Patient</th>
<th>Jim White</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>70 yrs</td>
</tr>
<tr>
<td>Weight</td>
<td>250 lbs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Condition</th>
<th>Bedsores, severe pain, has chronic obstructive pulmonary disease and cannot help move himself</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Attachments</td>
<td>none</td>
</tr>
<tr>
<td>Emotional Status</td>
<td>Severe pain, very weak</td>
</tr>
</tbody>
</table>
Scenario 3: Reposition the patient from side to side for linen change

Scenario and Prop Checklist:
- Red Armband
- Bed
- Shirt (300lbs)
- ID band

Verbal Responses: slightly unaware but cognizant of name; extremely upset stomach.
Key points: Requires six people to move the patient

Background for this scenario: read to participant team before move begins:

<table>
<thead>
<tr>
<th>Patient</th>
<th>Bill Jones</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>65 yrs</td>
</tr>
<tr>
<td>Weight</td>
<td>300 lbs</td>
</tr>
<tr>
<td>Condition</td>
<td>One day post hip replacement, extremely nauseous, slightly unaware, and unable to help move himself</td>
</tr>
<tr>
<td>Patient Attachments</td>
<td>IV</td>
</tr>
<tr>
<td>Emotional Status</td>
<td>None listed</td>
</tr>
</tbody>
</table>
Scenario 4: Moving patient from gurney to bed

Scenario and Prop Checklist
Purple Armband
Bed
Gurney
Shirt (150lbs)
Slide board
ID band

Verbal Responses: slightly unaware but cognizant of name; leg and pelvic area is extremely sore.
Key point(s): Requires three people to move or friction reducing device

Background for this scenario: read to participant team before move begins:

<table>
<thead>
<tr>
<th>Patient</th>
<th>Steve Martin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>45 yrs</td>
</tr>
<tr>
<td>Weight</td>
<td>150 lbs</td>
</tr>
<tr>
<td>Condition</td>
<td>Post cardiac cath, is very dizzy, leg and pelvic area is very sore, and knows his name</td>
</tr>
<tr>
<td>Patient Attachments</td>
<td>IV</td>
</tr>
<tr>
<td>Emotional Status</td>
<td>Insistent upon seeing his family right away</td>
</tr>
<tr>
<td>Phase</td>
<td>Goal</td>
</tr>
<tr>
<td>---------</td>
<td>-----------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Gather  | Listen to participants to understand what they think & how they feel about session | • Request narrative from team leader  
• Request clarifying or supplemental information from team  
  | All: How do you feel?  
Team Leader: Can you tell us what happened?  
Team members: Can you add to the account? | 25% |
| Analyze | Facilitate participants reflection on & analysis of their actions | • Review of accurate record of events  
• Report observations (correct & incorrect steps)  
• Ask a series of questions to reveal participants’ thinking processes  
• Assist participants to reflect on their performance  
• Direct/redirect participants to assure continuous focus on session objectives  
  | • I noticed…  
• Tell me more about…  
• How did you feel about…  
• What were you thinking when…  
• I understand, however, tell me about “X” _aspect of the scenario…  
• Conflict resolution:  
  • Let’s refocus- “what’s important is not who is right but what is right for the patient…” | 50% |
| Summarize | Facilitate identification & review of lessons learned | • Participants identify positive aspects of team or individual behaviors & behaviors that require change  
• Summary of comments or statements  
  | • List two actions or events that you felt were effective or well done  
• Describe two areas that you think you/team need to work on… | 25% |

Back Injury Prevention for Healthcare Professionals
FIVE PRINCIPLES OF BODY MECHANICS

1. **Retain** posture through the core of the body.

2. **Keep** all objects at belt buckle height.

3. **Align** hips and shoulders to face the object.

4. **Symmetrically** use both sides of the body.

5. **Maintain** a wide base of support.
PATIENT TRANSFER PROTOCOL

1. ID Patient and Move Requirement
   - Complete patient ID process
   - Identify position desired

2. Assess Patient
   - Ability to assist (independent, min, mod, max assist)
   - Pain and other vital sign
   - Lines

3. Enlist Personnel
   - Check patient weight (NIOSH suggests max lift of 50 lbs under ideal conditions; ANA suggests max lift of 35 lbs)
   - Await arrival of assistance

4. Gather Equipment
   - Lift devices
   - Friction reducing devices (FRD)
   - Positioning aids

5. Prepare Environment
   - Lock or recheck lock on tables
   - Adjust height of table to shortest person
   - Match surfaces
   - Move equipment to stay square to patient during lift

6. Communicate to Patient
   - Involve patient if alert - enlist their help
   - Introduce self and inform patient of what is about to occur
   - Do not surprise patient with lift

7. Communicate to Personnel
   - Avoid personnel injury by unexpected move
   - Agree upon count
   - Person standing at patient’s head commands
   - Clear all lines, tubes, drains, IVs

8. Perform Move
   - Focus on minimal lift
   - Consistently adhere to ergonomic principles (palms up, stay square, feet wide, maintain balance, no twisting, use legs)
   - Maintain control

9. Reassess Patient
   - Re-evaluate patient as per #2
   - Check all lines and drains
   - Remove lift devices from patient

10. Reset Environment
    - Secure patient
    - Pad all pressure points
    - Return lift device to storage
SBAR provides a framework for communication between members of the healthcare team. The model is used to standardize the type of information to be briefed. It sets the expectation that specific informational elements are going to be communicated every time a patient need is discussed.

**Before contacting other personnel, consider:**

<table>
<thead>
<tr>
<th><strong>WHO</strong></th>
<th>Will I need to move the patient?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Can the patient help?</td>
</tr>
<tr>
<td><strong>WHAT</strong></td>
<td>What is the type of move?</td>
</tr>
<tr>
<td><strong>WHERE</strong></td>
<td>Where will the move occur?</td>
</tr>
<tr>
<td><strong>WHEN</strong></td>
<td>Prioritize your request: emergency, urgent, routine</td>
</tr>
<tr>
<td><strong>HOW</strong></td>
<td>How will I use the equipment?</td>
</tr>
<tr>
<td></td>
<td>How will I enlist patient support?</td>
</tr>
</tbody>
</table>
SBAR FOR A MOVE
Situation - Background - Assessment - Request/Recommendation/Read-back

(S) Situation

- State your name and role.
- Ex. “The situation I am calling about is ______. I need to transfer Mr. Smith, can you assist?”
- Ex. “Based on his weight and assistive level, we will need ____ providers. I plan to use a ______ lifting device.”

(B) Background

- Give a brief synopsis of information leading up to the current problem.
- Ex. “Mr. Smith is a 50 yo, 200 lb patient. He is scheduled for a cardiac procedure and has been called.”
- Ex. “Mr. Smith is a full assist and is anxious. He cannot assist because he has been experiencing angina pain with minimal exertion.”

(A) Assessment

- Describe: be problem specific
- Ex. “Mr. Smith currently has an angina pain level of 1/10 (chronically). He is taking NTG SL prn.”
- State any changes from earlier evaluation or assessment. “Mr. Smith’s angina pattern has not changed since admission; however, he is going to the OR because his level of angina is considered unstable.”

(R) Request/Recommendation/Read-back

- State what you would like to see done (i.e., orders, equipment swap, send lab samples, obtain x-rays, send help).
- Ex. “Could I please have _____ other providers assist with the move? We will be using the _____ lift device.”
Back Injury Prevention for Healthcare Professionals

**Minimal Assist**
- Patient is assessed as able to support up to 75% of body weight during transfer

**Moderate Assist**
- Patient is assessed as able to support up to 50% of body weight during transfer

**Maximal Assist**
- Patient is assessed as able to support up to 25% of body weight during transfer

**Dependent**
- Patient is assessed as unable to support any body weight during transfer

Objectives

- Describe the problem of nurse and nurse aide back injury
- Identify the need for a structured and evidence-based program
- Participate in the WISER BIP simulation training
- Utilize the patient transfer tools to optimize transfers in the lab and in your work setting

Why Nursing Back Injury as a Prevention Target?

- Nurses represent 55-60% of all direct care workers in the healthcare system
- Nurse aides/PCTs represent an additional 10-15% of total workers
- Nurses and Nurse Aides combined have higher injury rates than truck drivers, dock works etc.
- The highest of any industry
### Nurse and Nurse Aide Injury Rates

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total Cases</th>
<th>Incidence Rate *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nursing Aide, Orderlies, and Attendants</td>
<td>20,166</td>
<td>146.2</td>
</tr>
<tr>
<td>2. Laborers and material movers, hand</td>
<td>22,350</td>
<td>146.2</td>
</tr>
<tr>
<td>3. Janitors and cleaners, except maids and household cleaners</td>
<td>15,020</td>
<td>104.5</td>
</tr>
<tr>
<td>4. Truck drivers, heavy and tractor-trailer</td>
<td>13,040</td>
<td>98.4</td>
</tr>
<tr>
<td>5. Truck drivers, light or delivery services</td>
<td>10,500</td>
<td>133.7</td>
</tr>
<tr>
<td>6. Registered nurse</td>
<td>10,409</td>
<td>80.6</td>
</tr>
<tr>
<td>7. Retail salespersons</td>
<td>8,200</td>
<td>27.2</td>
</tr>
<tr>
<td>8. Production workers, all other</td>
<td>8,180</td>
<td>---</td>
</tr>
<tr>
<td>9. Stock clerks and order fillers</td>
<td>8,000</td>
<td>57.3</td>
</tr>
<tr>
<td>10. Maintenance and repair workers, general</td>
<td>6,270</td>
<td>56.5</td>
</tr>
<tr>
<td>11. Construction laborers</td>
<td>6,040</td>
<td>96.4</td>
</tr>
<tr>
<td>12. Maids and housekeeping cleaners</td>
<td>5,450</td>
<td>83.8</td>
</tr>
</tbody>
</table>

*Incidence rates represent the number of injuries and illnesses per 10,000 full-time workers

### Back Injury Statistics
- **Annual prevalence:**
  - 40–50% of nurses report significant back pain

- **Career prevalence**
  - Up to 80% of nurses experience pain or suffer a significant injury
  - 38% of nurses require time off from work due to injury during their career
  - 12% of nurses leave the profession due to injury or back pain

### Why is this Problem Important?
- **Direct and indirect costs (US)**
  - Overall US Injury > $50 billion
  - Healthcare industry injury ~ $16 billion

- While it may seem like there is not a big nursing shortage now... we need to retain highly skilled workers

- Given the aging workforce and an aging population...the shortage will be back (no pun intended!)
Risk Factors for Injury and Back Pain in Nursing

- Work related factors
  - # 1 = Patient transfer
  - Also: tight spaces, equipment failures, sudden patient movement or fall, repetitive lifts (cumulative loading), heavy lifts (acute loading), patient population (orthopedics)

- Personal factors
  - #1 = Prior injury history
  - Also: improper body mechanics, ↑ age, *fitness, obesity, genetics, and muscular strength

The consequences....

The myths.....

Body mechanics training alone can prevent job-related injuries
Back belts are effective in reducing the risks to caregivers.
Nurses who are physically fit are less likely to be injured
Mechanical lifts cost too much to use
The individual provider can prevent themselves from being injured as long as they are careful
Culture is Critical

Creating a Culture of Safety for Safe Patient Handling

Linda Stevens, Susan Ross, Karen V. Lamb, Deborah Daling

- Support from administration on down
- Involvement of OT and PT
- Everyone does the right thing every time
- Staff monitor each other to stay safe
- Use equipment (and know how to use it properly)
- No more than 35 pounds


Are There Other National Solutions?

Patient Handling in the Veterans Health Administration Facilitating Change in the Health Care Industry

Michael J. Hodgson, MD, MPH, Mary K. Matt, MPH, Lisa P. Wolfe, MD, MPH, and Audrey Nelson, PhD, RN

- The VA has been a leader- their program is the foundation of the OSHA Nursing Home SPH Stds
- Focuses on multiple interventions- began with technology of training and has shifted to nursing process and culture focus
- They spent 208 million in rolling out the program to all of the VA’s nationally- much in putting a ceiling lift in every room

Why Not Just Ban Lifting?

- All federal bills have failed so far
  - 7 states do have no-lift policies
  - The United Kingdom is no-lift
  - The ANA, Joint Commission, OSHA and NIOSH all agree this is needed for workers

- However, it is estimated that it cost more than $9 billion dollars to put a ceiling lift in every hospital bed in the US.
  - Probably an under-estimate

The WISER Back Injury Program

- Started in 2006 at the UPMC Head and Spinal Cord Injury Center
- Training at WISER
- Significant results
- Health plan partnership
  - 'We’ve Got Your Back Program'
- UPMC McKeesport
  - Everyone trained

Training Lasts 3-4 Hours

- Learn the 10 steps
- Learn the rules for communication and team work
- Practice patient transfers: 35 pound rule
  - Use the assist level guide and other pocket tools
  - Follow the 10 steps every time
  - Monitor each other
  - Communicate well
  - Debrief after each practice
- Practice until nearly perfect
- Practice at the bedside every time

What is Our Proof It Works?

- Implemented first in 2007
  - Selected UPMC McKeesport due to high rates of injury and other co-morbid conditions in direct care personnel
- Train the trainers + simulation intervention
- 293 providers trained in a three month window (Jan- March 2007) (total trained 327)
- Pre and post training observations conducted of transfers
  - At 4 months- 86% adherence to the protocol
- Post training follow-up?
One Year Follow-up

Table 3: Results of the UPMC Health Plan “We’ve got your back!” Program. This mandatory, hospital-based program consisted of an interactive, web-supported simulation training program. All direct care employees at one suburban facility were required to complete the training (n = 127).

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>OSHA-recordable injury rates (per 10,000)</td>
<td>13.7</td>
<td>11.6</td>
<td>13% 50%</td>
</tr>
<tr>
<td>% of employees injured (annually)</td>
<td>10.6</td>
<td>9.1</td>
<td>9.0% 56%</td>
</tr>
<tr>
<td>Injury rate during transfer (per 1000)</td>
<td>1.6</td>
<td>1.5</td>
<td>0.8 56%</td>
</tr>
<tr>
<td>Days away restricted transfer (DART)</td>
<td>1260</td>
<td>1300</td>
<td>40 58%</td>
</tr>
</tbody>
</table>

1 Year Outcomes Evaluated: Matched Cohort Analysis

- Matched 100 Nurses with a similar group of 100 Nurses outside MKS
  - Matching variables
    - Sex
    - Age (within two years)
    - Job type (care manager, nurse, nurse assistant or patient care technician)
    - Job status (full vs. part time)
    - Length of job tenure (within six months)
    - Charlson comorbidity index
    - Presence of obesity (BMI >=30)

- Outcomes
  - 28% overall musculoskeletal injury reduction (p= 0.016)
  - Neck ↓↓ 77% (p < 0.01)
  - Back ↓↓ 65% (p < 0.01)

- Trends started after the program completed and were sustained for the entire year of surveillance


Significant gains in knowledge, attitude and skill which transferred to the clinical setting at MKS
Nurses are now training with the protocol in the UPMC system- more than 1000 at Passavant!
Significant reduction in MSI rates when nurses and PCTs/aides adhere to the steps
### References