Objectives:

- Describe national trends in workplace safety
- Identify the requirements of the New York State Safe Patient Handling Program (SPH)
- Define the steps involved in developing a hospital-wide patient Early Mobilization Program that meet the SPH requirements
- Describe the outcomes associated with an early mobilization program

• Academic affiliation with NYU since 1986.
• Merged with NYU Langone Medical Center in 2006
• Vision is to be a world-class patient-centered integrated academic medical center
• Musculoskeletal Service Line – Orthopaedics, Rheumatology and Rehabilitation Medicine
Hospital for Joint Diseases (HJD)

We’ve been named one of the best hospitals in the U.S. and ranked in the top 10 in Orthopaedics, Rheumatology and Rehabilitation

- Only hospital in New York to receive top 10 rankings for all three musculoskeletal specialty areas in 2014:
  - Orthopaedics (ranked #4),
  - Rheumatology (ranked #6)
  - Rehabilitation (ranked #9)

- NYU Langone’s Rusk Rehabilitation was again ranked the best in New York State and among the top 10 in the country, an honor held for 25 years since U.S. News & World Report first introduced its annual “Best Hospitals”

Demographics

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Surgeries</th>
<th>Operating Beds</th>
<th>Operating Rooms</th>
<th>Inpatient Visits</th>
<th>Outpatient Visits</th>
<th>Emergency Room</th>
<th>Rehab Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>46% Elective Admissions</td>
<td>1,935</td>
<td>190</td>
<td>20</td>
<td>1,834</td>
<td>20,934</td>
<td>19,246</td>
<td>784</td>
</tr>
</tbody>
</table>

Department of Nursing & Rusk Physical Therapy

<table>
<thead>
<tr>
<th>Certification of RNs</th>
<th>Leadership Certification</th>
<th>Joint Commission Certification</th>
<th>RN BSN 80%</th>
<th>RNBA 92%</th>
<th>Rusk Physical Therapy Board Certified Specialist 24%</th>
<th>Rusk Physical Therapy Board Certified Specialist 24%</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>85%</td>
<td>99%</td>
<td>35%</td>
<td>78%</td>
<td>90%</td>
<td>88%</td>
</tr>
</tbody>
</table>

WORK PLACE SAFETY

AND

NATIONAL TRENDS
National Trends In Safe Patient Handling

• Nurses and other healthcare workers face many hazards in their work environments

• Healthcare workers experience the highest rate of non-fatal occupational injuries and illnesses of any industry sector

• 62% of Registered Nurses indicated that suffering a disabling Muscular Skeletal Disorder (MSD) was one of their top three safety concerns

• 80% of nurses reported working despite experiencing frequent musculoskeletal pain (ANA, 2011).

National Trends

• In 2011, Registered Nurses ranked fifth among all occupations for the number of cases of MSD resulting in days away from work, with 11,880 total cases

• Nursing Assistants reported 25,010 cases, the highest for any occupation.

• The majority of injuries and MSDs can be attributed to overexertion related to repeated transfer, repositioning, and ambulation of patients (OSHA, 2011)

Hospital for Joint Diseases Work Injuries for 2013
Safe Patient Handling and Mobility

- Safe Patient Handling and Mobility (SHPM) programs reduce the risk of injury for healthcare workers and patients while improving the quality of care.

- Successful SPHM programs have reduced the incidence of healthcare worker injuries by up to 95%.

- Professional Organizations such as National Association of Orthopaedic Nurses (NAON), Association of Perioperative Registered Nurses (AORN) and ANA have all adopted similar patient handling guidelines that recommend use of technology-based solutions for patient handling and movement.

Safe Patient Handling
Safe Patient Handling

By January 1, 2017:

• Each facility must implement a safe patient handling program
• The SPH program must apply to all units and shifts: can be phased in
• Required elements include providing initial and annual training and education on safe patient handling for current employees and new hires; utilizing a process for incident investigation and plans of correction
• Conducting annual performance evaluations and considering the feasibility of incorporating SPH equipment when constructing new facilities or remodeling existing ones.

Safe Patient Handling and Mobility Standards

The SPHM standards are based on evidence of effectiveness in improving patient outcomes and reducing workers’ musculoskeletal disorders, and including eight principles:

1. Establishing a culture of safety
2. Creating a sustainable program
3. Incorporating ergonomic design principles
4. Developing a technology plan
5. Educating and training health care workers
6. Assessing patients to plan care for their individual needs
7. Setting reasonable accommodations for employees’ return to work post-injury
8. Implementing a comprehensive evaluation system

http://www.nursingworld.org/SPHM-Standards-PR

THE ROLE OF PHYSICAL THERAPY IN SAFE PATIENT HANDLING

• The American Physical Therapy Association endorses the following concepts:
  o Physical therapists (PT) and physical therapist assistants (PTA) should be involved and be leaders throughout development, implementation, refinement and maintenance of Safe Patient Handling programs on an institutional level and at the local, state and federal government levels.
  o PTs and PTAs shall lead by example, appropriately supporting and employing the concepts of Safe Patient Handling during patient care.
  o PTs and PTAs should be leaders in multidisciplinary Safe Patient Handling training programming to expand the Safe Patient Handling knowledge and resources of the multidisciplinary health care team.

An Interprofessional Mobilization Program

Process Mapping

Mobilization Program: Inception to Implementation

• HJD incorporated standard five of the ANA Safe Patient Handling and Mobility recommendations into practice within the orthopaedic service

• The creation of an evidence based approach to mobilization was developed through a review of the literature

• In 2012 an early mobilization interdisciplinary team composed of nursing management, staff, educators, quality specialists and physical therapists was formed
MOBILITY SURVEY

Pre-Implementation Survey
A pre-implementation survey was created by the task force to assess the confidence level of staff with mobilization modalities

• A 25 question web based survey utilizing the Likert Scale

• Participants included staff Registered Nurses (RN) and Patient Care Technicians (PCT)

Mobilization Implementation Survey Findings
1. I feel confident in assessing my patients’ mobility assistance needs
   Pre - 91%  Post - 93%

2. I would be more confident mobilizing my patients after receiving mobilization training
   Pre - 88%  Post - 92%

3. I have the tools & skills I need to safely mobilize my patients on post-operative day #1
   Pre - 71%  Post - 92%

4. Early mobilization will improve patient outcomes
   Pre - 88%  Post - 94%
AN EARLY MOBILIZATION EDUCATION PROGRAM

Early Mobilization Education Program

Goals of the Early Mobilization Education Program:
• Improved patient mobility
• Improved quality of care
• Increase staff knowledge of safe and effective mobilization skills with improved nursing staff satisfaction

Learning Objectives:
• Perform an initial and ongoing patient assessment to facilitate the early mobilization of patients recovering from total joint replacement and spine surgery
• Discuss the strategy for safe patient handling and movement in the orthopaedic setting
• Demonstrate the proper technique for moving, transferring, and ambulating the patient
• Demonstrate the proper use of durable medical equipment (DME)
Content of the Educational Material

Patient and staff safety was the emphasis of the educational material.

- Content was developed based on the following:
  - NAON Orthopaedic Algorithms
  - American Nurses Association (ANA) Safe Patient Handling
  - AORN Safe Patient Handling Toolkit
  - Nursing Survey results
  - Site specific needs
  - Nature of staff injuries

- Educational Material included:
  - Review of orthostatic hypotension and its impact on mobility \( (Lanier, 2011) \)
  - Effects of anesthetics and related impairments \( (Bauer, 2014) \)
  - Safe transfer techniques and hand placements \( (O’Sullivan, 2001) \)
  - Proper body mechanics at workplace \( (OSHA, 2011) \)

Competency Assessment Program

Assessment of learning needs
- Teaching directed to facilitate learning
- Utilizing the Principles of Adult Learning
- Teaching / Learning Interactive Partnership

Methods of Teaching / Learning
- Lecture / Discussion
- Video Presentation
- Clinical Preceptorship
- Clinical Observation

Methods of Evaluation
- Skills Labs
- Return Demonstration
- Clinical Preceptorship
- Clinical Observation

Achieve and Maintain Competence
- Continuous learning and education
- Interprofessional education programs promote higher quality care

Early Mobilization Competency Assessment Program:
Nursing Education and Rusk Physical Therapy

The design of the competency framework included the assessment of three domains to meet learning needs:

- Interpersonal domain
- Critical thinking domain
- Technical domain

\( (Del Bueno, 2005) \)
Competency Assessment: Nursing Education and Rusk Physical Therapy

The Competency Assessment Program Development was based on:

- Interdisciplinary collaboration to develop appropriate core competencies for early mobilization
- Providing nursing staff with the required information to function safely in their respective roles
- Reviewing clinical skills and assessing competency levels
- Meeting the learning needs of the nursing staff to assure and improve competency on an ongoing basis

Early Mobilization Education Program

<table>
<thead>
<tr>
<th>NAON * ALGORITHMS (OCT 2012)</th>
<th>MOVEMENT STRATEGIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orthopaedic Algorithm 1: Turning the Patient in Bed (Side-to-Side)</td>
<td>Bed Mobility</td>
</tr>
<tr>
<td>Orthopaedic Algorithm 2: Vertical transfer of a post operative total hip replacement patient (bed to chair, chair to toilet, chair to chair or car to chair)</td>
<td>Upright Positioning, Supine to Sit Transfers, Sit to Stand Transfers</td>
</tr>
<tr>
<td>Orthopaedic Algorithm 3: Vertical transfer of a patient with an extremity cast / splint</td>
<td>Ambulation</td>
</tr>
<tr>
<td>Orthopaedic Algorithm 4: Ambulation</td>
<td>Ambulation with DME</td>
</tr>
<tr>
<td>Proper Use of Safe Patient Handling Devices</td>
<td>Proper Body Mechanics</td>
</tr>
</tbody>
</table>

Early Mobilization Competency Assessment Program: Nursing Education and Rusk Physical Therapy

Competency Roll-out:

- The methods of teaching/learning include lecture/discussion, video presentation, and clinical preceptorship with clinical observation
- The methods of evaluation included a skills lab with return demonstration and clinical observation
- The interdisciplinary team performed competency assessment via direct observation
Champion Designation

Champions selected by:

- Recommendations from the interdisciplinary team:
  - Demonstrating initiative to mobilize patients
  - Knowledge base
  - Skills set
- Self selection with Nurse Manager’s approval

Train the Trainer Model
Phase One:
Prior to the nursing staff training all Physical Therapy champions were trained to provide a standardized approach to education and demonstration.

Phase Two:
Nursing Champion training by Rusk Rehabilitation Physical Therapy Department with a one (1) hour didactic and a two (2) hours hands-on lab with return demonstration.

Phase Three:
Nursing staff training by nursing and PT champions with a one (1) hour didactic and a two (2) hours hands-on lab with return demonstration.

Phase Four:
Shadowing observation with a PT champion on the unit was encouraged.

Competency assessments for staff nurses were completed by the nurse managers, nurse educators, and PT and Nurse champions via return demonstrations on 3 separate occasions for each competency.

Train the Trainer Teaching Modality

Train the Trainer Teaching Modality

EARLY MOBILIZATION PROGRAM KICK OFF/ ROLL OUT
Early Mobilization Kick Off/ Roll Out

Slogan selection

• Staff Engagement
• Unit based slogan suggestion box
• Award for winning slogan
• The Interdisciplinary Taskforce reviewed over 45 slogans from our interdisciplinary staff and selected the winning slogan

Official Kick Off

• RN and PT leadership introduced the EM program at staff meetings and unit based huddles
• Kick-off breakfast, pizza party, promotional materials

Early Moves...

Health Improves!

• An interdisciplinary approach to initial post-operative patient mobilization

• Promote safe and effective movement for both patients and staff

• Help improve outcomes for our patients including lowering the risk for DVT or PE & decreased length of stay

• Help decrease the risk for staff injuries

• Learn from your colleagues

Early Mobilization 2013

OUTCOMES
Safe Patient Handling Outcomes

In addition to reducing healthcare injuries, SPH programs have many other benefits, including:

- Improved quality of care
- Improved patient mobility
- Decrease in patient falls and pressure ulcers
- Increase in patient satisfaction
- Increase in healthcare worker satisfaction
- Savings due to reductions in workers’ compensation
- Employee turnover


![ALOS Medicare Comparative Joints](image)

![Hospital for Joint Diseases Percent of Acute Patients with HAPU](image)
2014 Work Injury Outcomes

**Hospital for Joint Diseases Acute Falls Rate**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q 14</th>
<th>2Q 14</th>
<th>3Q 14</th>
<th>4Q 14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Falls Rate</td>
<td>3.58</td>
<td>2.31</td>
<td>0.84</td>
<td>1.12</td>
</tr>
</tbody>
</table>

**Case Counts**

<table>
<thead>
<tr>
<th>Condition</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contusion/Bruse</td>
<td>21</td>
<td>9</td>
</tr>
<tr>
<td>Strain/Sprain</td>
<td>20</td>
<td>11</td>
</tr>
</tbody>
</table>

**Lost Days**

<table>
<thead>
<tr>
<th>Condition</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contusion/Bruse</td>
<td>355</td>
<td>232</td>
</tr>
<tr>
<td>Strain/Sprain</td>
<td>274</td>
<td>165</td>
</tr>
</tbody>
</table>
**Process Mapping**

1. Need identified by staff nurse
2. Needs assessment survey
3. Development of educational material and competencies
4. Staff nurse and PCT training
5. Nurse and PCT champion selection
6. Rollout
7. Kickoff
8. Annual staff competency, nurse staff, training program expansion
9. Continue or abandon mobilization program
10. Post survey & assessment of outcome data

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**Next Steps**

- **Initiate Mobilization Program to the Special Care Unit (SCU), Step Down Unit (SDU), Post Anesthesia Care Unit (PACU)**
  - Champion training was completed in December 2014
  - Currently the staff are being scheduled for training
- **Develop Mobilization Program for the adult and pediatric inpatient rehabilitation units**
  - Currently the educational content is being developed
- **A needs assessment is being completed in the outpatient units**

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**The Interdisciplinary Early Mobilization Taskforce**

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References:

• (CDC), 2009; Cantor, 2006; Della Valle et al., 2000; Menzel, Hughes, Waters, Shores, & Nelson, 2007; Morris, Benetti, Manno, & Rosenthal, 2010; Wellman, Murphy, Guclucynski, & Murphy, 2011
• Gonzalez CM, Howe C, Waters T, Nelson A, Hughes N (2009). Recommendations for vertical transfer of a postoperative total hip replacement patient (bed to chair, chair to toilet, chair to chair, or car to chair). Orthopaedic Nursing, 28(2S), S13-S17

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