Incorporating Safe Patient Handling and Mobility (SPHM) Information into Healthcare Curriculum.

Getting Started Guide

This guide is to help you implement evidence-based SPHM practices to prepare future health care workers (HCWs) to use technology, such as powered lifts and friction reducing devices, that supports safe patient mobilization and fall prevention while reducing work-related musculoskeletal disorders (WMSDs) to ensure a safe and fulfilling career.

Use the steps below to help guide your journey to achieve this goal.

Refer to the *SPHM Equipment General Guide to Types, Features and Applications* on page 4 to learn more about SPHM technology.

Understand your WHY	• Explore the Association of Safe Patient Handling Professionals (ASPHP) white paper Executive Summary found here: https://asphp.org/wp-content/uploads/2023/09/SPHM-Curriculum-White-Paper.pdf to formulate your WHY.
	  ○ Review stories shared on NPR. https://www.npr.org/series/385540559/injured-nurses
	  ○ Understand back injury statistics (Refer to *Background* in the White Paper)
	  ○ Survey your students about their experience with handling patients and injury

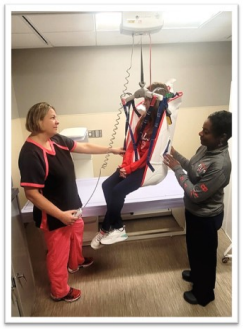
Gaining knowledge	• Ask a local SPHM clinical expert to visit your school to share real world experiences and lend credence to this new material. • Invite SPHM users to sit on your Advisory Panel. • Attend an SPHM conference such as the ASPHP annual conference.https://asphp.org/asphp-national-sphm-national-education-event/ • Look at expert resources such as NIOSH, OSHA, and the VA-for a wealth of information *(see resources in the white paper and on this webpage)*. • Join The Association of Safe Patient Handling Professionals (ASPHP) and gain access to free webinars and other educational offerings.

Make the case	• Use the information presented in the white paper that defines the issue:
	  ○ Figure 9. Summarizes of the Benefits for SPHM Education in Health Care Student Curriculum in the US (p21).
	  ○ Published Evidence of Successful Integration of SPHM Principles into Curriculum (p33).
	  ○ Addressing internal drivers that influence adoption and sustainment of SPHM into health care curricula - Directives 7-9 (p45).
	  ○ Appendix C Curriculum Success Stories.
	• Solicit assistance from SPHM managers/coordinators at clinical sites with SPHM programs.

Look at your budget	• Single discipline department • Interdepartmental • Grant funding • Research funding
Procuring equipment	• If you have relationship with a clinical site that has an SPHM program, set meetings with their SPHM coordinator to explore how they can help you. • Utilize refurbished/donation equipment. • Reach out to vendors to ask for demo units. • Apply for grants. There are workforce grants available that will pay for equipment, and for continuing education for faculty. • Learn more about your clinical sites. Schedule a field trip.
Determine training needs for faculty	• Assess SPHM knowledge gaps.
Connect with ASPHP education website and mentors	• Utilize resources on the ASPHP website www.asphp.org
Incremental implementation	• Start small. Choose one or two classes or cohorts to begin. • Adapt current case scenarios and lab activities; don't try to reinvent the wheel. • Utilize free videos on the internet such as the UMass Lowell SPHM course. https://www.uml.edu/Research/CPH-NEW/education-training/ergonomics/default.aspx. Review the list of *Instructional Resources* provided on this webpage. • Use associations websites: NIOSH, OSHA, VA, ANA, ASPHP. • Offer student incentives to help with research and content development by using SPHM as an honors project, service learning, capstone project, etc. • Consider starting with SPHM as an elective component, or for extra credit, to practice, and to collect helpful feedback. If the buzz is good, other students and faculty will hear and want to participate. • Use the ASPHP curriculum related tools as they are published.
Coordinating with clinical sites	• Host an open house/equipment fair for local agencies. • Develop a speaker's bureau or list of faculty experts. • Develop a listserv or other forum for schools and agencies to communicate. • Survey students during and post clinical about the availability of SPHM equipment and the best person from their site to contact. • Designate on the list of clinical sites which ones have SPHM so that students can make an informed decision when choosing. • Campaigning/promoting SPHM in your program. • Create a catchy slogan as part of the SPHM campaign to catch the students' attention.

**Please note: References to page numbers and Appendices are from the ASPHP white paper.

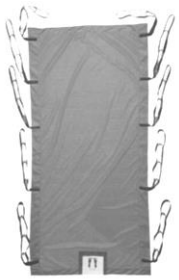
Safe Patient Handling and Mobility (SPHM) Equipment General Guide to Types, Features and Applications

Equipment Type [1]	Equipment Features to Consider [2]	Clinical Applications (Used with Different Sling Designs)	Patient Criteria
1. Overhead lift: Powered, attached to ceiling or wall mounted tracks or to a free-standing gantry.  	☐ Traverse (also known as full room coverage or "H" like) ceiling mounted tracks with continuous charge capability (preferred) or docking station for the motor ☐ Integrated scale ☐ Usage tracking capability ☐ Hanger bar for slings with LOOP attachments (2, 4 or more points) ☐ Hanger bar for slings with CLIP attachments (4-point) ☐ Used with a variety of sling designs (see below)	• Repositioning e.g., boosting, turning, and proning to facilitate hygiene, wound care, pressure injury prevention, respiratory assistance etc.) • Transfer in a supine position between bed/stretcher/table or from the floor • Obtain weight • Transfer in a seated position between bed/stretcher/table, recliner/wheelchair, and toilet/bedside commode or from the floor • Standing transfer between bed bed/stretcher/table /chairs/commodes etc. • Ambulating • Holding limbs (i.e., to facilitate perineal hygiene, wound care, lower extremities passive exercises) and support patient in side lying position during care tasks • Some slings have the option of air assisted transfer feature (see below) and can be sold separately from the lift manufacturer.	• Requires total assistance with mobility and positioning • May or may not be able to follow instructions • Cannot bear weight • Cannot sit on the edge of bed or support surface
2. Floor-based lift: Mobile, used in different areas. Also known as a 'Hoyer' lift. 	☐ Powered drive, if available to reduce force required to move lift with patient load ☐ Battery or power cord for charging ☐ Integrated scale ☐ Width adjustable base ☐ Low casters to accommodate bed or stretcher with limited base clearance ☐ Usage tracking capability	• Repositioning (see ceiling lift above) if lift is designed for this function (per manufacturer) • Transfer in a seated position between bed/stretcher/table, recliner/ wheelchair, and toilet/bedside commode • Obtain weight • Lift from floor if designed for this task (per manufacturer) • Ambulation • Holding limbs (i.e., to facilitate perineal hygiene, wound care, lower extremities	• Requires total assistance with mobility and positioning • May or may not be able to follow instructions • Cannot bear weight • Cannot sit on the edge of bed or support surface

Equipment Type [1]	Equipment Features to Consider [2]	Clinical Applications (Used with Different Sling Designs)	Patient Criteria
2. Floor-based lift continued 	☐ Hanger bar for slings with LOOP attachments (2, 4 or more points) ☐ Hanger bar for slings with CLIP attachments (4-point) ☐ Used with a variety of sling designs (see below)	passive exercises) and support patient in side lying position during care tasks	
3. Sit-to-stand lift: Powered, mobile. 	☐ Battery or power cord for charging ☐ Integrated scale ☐ Width adjustable base low casters to accommodate bed or stretcher with limited base clearance ☐ Used with washable wipeable or disposable belts or slings with LOOP or CLIP attachments	• Support sitting balance • Lift up to stand and hold in standing position to support weight bearing • Obtain weight • Promote supported sit-stand movements • Support standing & transfer between surfaces with height adjustability such as exam tables/stretchers/beds and chair/ wheelchairs/commode • Support standing to facilitate a variety of care tasks such as toileting hygiene, using urinal, assessing skin, providing injections near gluteal area (i.e., post-surgery with anesthesia block)	• Can follow instructions • Is not combative or agitated • Able to sit on the edge of the bed or support surface with some assistance • Can use hand(s) to hold onto the handle • Able to bear weight in at least one leg • Requires assistance to stand and maintain standing position • High fall risk
4. Sit-to-stand lift: Non-powered, mobile, active standing device. 	☐ Width adjustable base ☐ Low casters to accommodate bed or stretcher ☐ Features vary i.e., with or without seat support	• Support standing & "perching" • Promote supported sit-stand movements • Support standing & transfer between surfaces with height adjustability such as exam tables/stretchers/beds and chair/ wheelchairs/commode • Support standing to facilitate a variety of care tasks such as toileting hygiene, using urinal, assessing skin, providing injections near gluteal area (i.e. (i.e., post-surgery, post-partum)	• Can follow instructions • Is not combative or agitated • Able to sit on the edge of the bed or support surface independently • Able to bear weight in at least one leg • Can use hand(s) to actively pull self to stand and maintain standing • Has unsteady gait • Fall risk

Equipment Type [1]	Equipment Features to Consider [2]	Clinical Applications (Used with Different Sling Designs)	Patient Criteria
5. Friction-reduction device: Air-assisted mat. 	• Mat width and length vary by manufacturer • May have straps to keep the mat in place on the bed when needed • Must be used with an air-inflator/pump from manufacturer of mat • Some manufacturers provide air assist devices that can attach to lifts and function as slings. Refer to the information below regarding sling usage and important safety considerations.	• Repositioning e.g., boosting, turning, and proning to facilitate hygiene, wound care, pressure injury prevention, respiratory assistance etc.) • Transfer laterally in a supine position between bed/stretcher/table Can be used in conjunction with an air assist lift for fall recovery	• Requires total assistance with bed mobility • May or may not be able to follow instructions • Does not have spinal precautions
6. Friction-reduction device: Non-air, slide sheets. 	• Made from various materials and may be washable, wipeable or disposable. • Available in a variety of sizes.	• Repositioning e.g., boosting, turning, and proning to facilitate hygiene, wound care, pressure injury prevention, respiratory assistance etc.) • Transfer laterally in a supine position between bed/stretcher/table Assist with placing a sling behind a person seated in a chair/wheelchair or bed • Assist to swivel patient to seated position at the edge of bed/table • Can be used to assist with passive and active range of motion activities	• May or may not be able to follow instructions • Requires moderate to total assistance with bed mobility

Equipment Type [1]	Features to Consider [2]
7. Slings Slings can be defined as accessory devices that are used with SPHM technology such as ceiling/overhead lifts, mobile floor and sit-to-stand lifts to support a patient's body or body part during transfer, lifting, repositioning, ambulating, or holding tasks. The design of the sling determines the position of the patient or patient's body part when attached to a lift or transfer device e.g., a seated, recumbent, supine, or upright position. General categories of slings are described below:	• Various styles, sizes and functions • May be washable, wipeable or disposable • Sling designs with LOOP or CLIP attachments (see right) should only be used with hanger bars specifically designed for LOOP or CLIP attachments; these are not interchangeable • Sling manufacturers or vendors must provide instructions on correct choice of sling to fit a patient, the care task being performed and the type of lift and hanger bar being used • Refer to the sling manufacturer's instructions for selection and appropriate use  *Example of a sling with a*  *Example of a sling with a clip*

Sling Type [1]	Features to Consider [2]	Clinical Applications	Patient Criteria
Seated slings  *Example of a universal seated sling with loop attachments.*	• Seated slings differ in style, design and sizing by manufacturer • They may or may not be designed to allow toileting, showering or bathing, or be suitable for use with patients with single and bi-lateral lower limb amputation. • The degree of head and trunk support provided by a sling also varies.	• Seated slings are used to lift and transfer patients who require full body support (i.e. non-weight bearing) in a seated or semi-reclined position, e.g. bed to/from commode or toilet, wheelchair, chair, stretcher or exam table, when attached to an overhead/ceiling lift or to a portable floor-based lift (dependent lifts).	• Requires total assistance with mobility and positioning • The benefits, limitations and contraindications associated with transferring patients using a seated sling depend on the specific design of the sling. .
Supine slings  *Example of a supine full body sling with loop attachments.*	• Supine or repositioning slings are typically rectangular in shape with several attachments points and are designed to cover the bed surface and in most cases support the full body. • Designs vary in width, length, number, and length of loop attachments.	• Supine or repositioning slings are used to reposition (boost and turn) and transfer patients who are lying in a supine position and cannot move themselves. They may be used to turn a patient to and from supine to prone position and to lift a patient from the floor. • They are used with overhead/ceiling lifts and some models of portable floor-based lift (dependent lifts).	
Limb slings and turning bands  *Example of a limb sling with loop attachments.*	• Limb slings and turning bands may consist of one or multiple straps or bands of fabric or wipeable material designed to lift and support a body part(s).	• These slings may be designed to support limbs during dressing changes and foot care, and/or for turning a patient to view their back or bottom and to provide care. • They are used with overhead/ceiling lifts and portable floor-based lift (dependent lifts).	• Requires assistance to support body part.

Sling Type [1]	Features to Consider [2]	Clinical Applications	Patient Criteria
Walking/ ambulating slings  *Example of an ambulating sling with loop attachments.*	• The design of walking/ambulating slings varies. These slings may provide upper body or lower torso/hip support with or without head support and may or may not have crotch or leg supports.	• These slings assist patients with partial to full weight bearing capabilities from a sitting to standing position and movement in a standing position e.g., pivot transfers, ambulation, and toileting. • They are used with overhead/ceiling lifts and some models of portable floor-based lift (dependent lifts).	Has partial to full weight bearing capabilities.
Sit-to-stand belts or slings  *Example of sit-to-stand lift sling with loop attachments.*	• Sit-to-stand belts or slings consist of a single band that is secured around a patient's waist. They may or may not be used with a buttock support or leg extension strap that goes around the upper thigh to further secure the patient.	• These slings are designed for use with powered and certain models of non-powered sit-to stand lifts, facilitating patient support from a seated to a standing position and maintaining stability throughout the transfer process.	Has partial to full weight bearing capabilities.

1. The examples of SPHM equipment and slings included in this guide are provided for illustrative purposes only. They do not represent a comprehensive listing, nor are they meant to endorse any particular brand or model of device.
2. The weight capacity of each type of equipment and the number of caregivers required to use or operate SPHM equipment varies by manufacturer.

Choosing SPHM Equipment and Slings

A structured approach is needed so that caregivers can choose the SPHM equipment that effectively reduces risk for both caregivers and patients during patient handling and mobility activities.

This is achieved by using evidence-based SPHM algorithms and mobility assessment protocols that enable caregivers to evaluate an individual patient's physical, cognitive, clinical, and rehabilitative needs. The most appropriate SPHM technology and practices are then selected based on a patient's current mobility status and the handling and mobility task to be performed (ANA, 2021).

Patients' physical and cognitive abilities can change frequently particularly in acute care, so regular reassessment is necessary to ensure safe mobilization.

It is important to note that fall risk assessments *are not* designed to evaluate a patient's need for SPHM equipment to facilitate safe mobilization. However, incorporating fall risk assessment into SPHM patient mobility assessment protocols and the evaluation of individual patients' SPHM needs can be an effective approach to facilitating safe early and progressive mobilization.

Examples of SPHM algorithms and mobility assessment protocols are provided below.

SPHM Mobility Assessment and Decision-Making Tools

SPHM Clinical Algorithms and Guidelines

- **The Veterans Health Administration (VHA) SPHM algorithms 2014.** Algorithms can be accessed via an IOS or Android app https://mobile.va.gov/app/safe-patient-handling# or from https://www.scribd.com/document/477540667/VHA-Safe-Patient-Handling-algorithms

  Information about use of the algorithms can be found in:

  - Safe Patient Handling and Mobility Guidebook. VHA Center for Engineering & Occupational Safety and Health (CEOSH) St. Louis, Missouri**.** January 2016. https://www.stryker.com/content/dam/stryker/education-and-training/focusrn/resources/caregiver-safety/implementation-tools/VA%20SPHM_PDF.pdf
  - Bariatric Safe Patient Handling and Mobility Guidebook: A Resource Guide for Care of Persons of Size**.** VHA Healthcare Environment and Facilities Programs (HEFP) Enterprise Support Service. Rev. 2025. https://barisolutions.com/barifiles/Bariatric%20Safe%20Patient%20Handling%20and%20Mobility%20Guidebook.pdf

  Note: The VHA SPHM algorithms are under revision; visit the VHA Safe Patient Handling and Mobility webpage for publication updates. https://www.publichealth.va.gov/employeehealth/patient-handling/

- **The National Association of Orthopaedic Nurses (NAON) algorithms** specific to the lifting and mobilization of Orthopedic patients. https://www.orthonurse.org/Portals/0/Docs/Publications/Position%20Statements/NAON%20Safe%20Patient%20Handling%20and%20Mobility%20Algorithms%20for%20the%20Adult%20Orthopaedic%20Patient.pdf?ver=rueoatTtX342xARJCn9kJw%3d%3d

- **The Association of periOperative Registered Nurses (AORN) ergonomic tools and/or algorithms specific to the high-risk patient handling tasks in the Perioperative environment.** These tools also contain ergonomic guidelines for pushing and pulling wheeled equipment and for tasks requiring static holding such as holding a limb for pre-surgical preparation. Subscription required /free to AORN members. https://www.aorn.org/article/2024-updates-to-aorn-guideline-for-safe-patient-handling-and-movement

  SPHM algorithm pocket reference(2019). https://www.aorn.org/docs/default-source/aorn/toolkits/safe-patient-handling/safe-patient-handling-pocket-reference-guide.pdf?sfvrsn=36a9944f_0

SPHM Mobility Assessment Tools

- **The Bedside Mobility Assessment Tool (BMAT)**

  Boynton, T., Kumpar, D., & VanGilder, C. (2020). The bedside mobility assessment tool 2.0. Am Nurse J, 15, 18-22. https://www.myamericannurse.com/the-bedside-mobility-assessment-tool-2-0/

  The bedside mobility assessment tool 2.0. Fig-A-210673-EN-r2_BMAT-2.0-Stair-Step-Chart_Presentation https://www.myamericannurse.com/wp-content/uploads/2020/07/Fig-A-210673-EN-r2_BMAT-2.0-Stair-Step-Chart_Presentation-LR2-Copy-1-2.pdf

  Hillrom | Bedside Mobility Assessment Tool 2.0 | Instruction Video. https://www.youtube.com/watch?v=HyFnWmCsJ24

  The BMAT tool is copyrighted. For further information on the BMAT, its fee-free licensing agreement, or training in its use, visit www.hillrom.com

- **The Veterans Administration (VA) Mobility Screening and Solutions Tool (VA MSST)**

  Melillo, C., Rugs, D., Toyinbo, P., Barrett, B., Chavez, M., Cowan, L., ... & Sullivan, S. C. (2022). Reliability and validity of the Veterans Administration Mobility Screening and Solutions Tool. BMC Health Services Research, 22(1), 1323. https://pubmed.ncbi.nlm.nih.gov/36335334/

- **The John Hopkins Safe Patient Handling Mobility(JH-SPHM) Guide**

  The John Hopkins Activity and Mobility Promotion Toolkit is copyrighted but can be accessed from: https://www.hopkinsmedicine.org/physical-medicine-rehabilitation/education-training/amp/toolkit

  McLaughlin, K. H., Friedman, M., Hoyer, E. H., Kudchadkar, S., Flanagan, E., Klein, L., ... & Young, D. (2023). The Johns Hopkins Activity and Mobility Promotion Program: a framework to increase activity and mobility among hospitalized patients. Journal of nursing care quality, 38(2), 164-170. https://journals.lww.com/jncqjournal/fulltext/2023/04000/The_Johns_Hopkins_Activity_and_Mobility_Promotion.12.aspx?context=FeaturedArticles&collectionId=5

  Kumble, S., McLaughlin, K. H., Funk, K., Dekany, S., Ludwig, D., Farley, H., ... & JH-AMP Group. (2024). Development of a New Tool to Combine the Promotion of Patient Mobility with Safe Patient Handling Equipment: The Johns Hopkins Safe Patient Handling Mobility (JH-SPHM) Guide. Workplace Health & Safety, 72(11), 503-513. doi: 10.1177/21650799241268745. Epub 2024 Aug 22. PMID: 39169859.