

# Safe Patient Handling and Mobility Claims Coding: A Pragmatic and Functional Approach

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## Abstract

Healthcare organizations are now engaged in Delivery System Transformation (DST), whereby performance-based incentive payment programs are used to support and reward hospitals for investing in projects that advance better care, better population health, and lower costs. In these efforts the understanding of the causes around patient handling and mobility workers' compensation injury claims is critical. Until now, programs which are self-administered or utilize a Third Party Administrator (TPA) have relied on vastly different coding structures to determine employee injury trends. Unfortunately, these coding structures, particularly around causes, lack any real, actionable data to establish investment needs for safe patient handling interventions. Healthcare organizations are left with drilling down to the accident description level and extracting key causes of the patient handling injury, which is both time consuming and unrealistic given the human resource demand on most healthcare providers. This paper proposes a condensed, yet powerful, sub-level coding structure for safe patient handling claims that can easily be adopted by any claims reporting system; thereby removing the need to manually sort through lines and lines of data for relevant trends. By adopting this sub-coding structure on a national level, the safe patient handling community will be rewarded with a consistent and transparent approach to claims which will enable not only facility level comparison of key functions and tasks associated with patient handling claims, but peer to peer benchmarking of these causes as well as return on investment calculations at the fingertips of the end user.

## Introduction

Healthcare companies in today's business environment are experiencing an unprecedented amount of change both in terms of change drivers and pace of change (e.g., mobile, social, and cloud computing technologies; shifting workforce demographics; increasing importance of global opportunity and competition; new sources of competitive advantage; rapidly evolving risk and regulatory requirements). Healthcare is an industry in the midst of fundamental transformation across the entire value chain and in addition to all sectors including physician groups, individual hospitals, senior care facilities, managed care organizations, insurance companies, wellness organizations, and integrated health care systems. As healthcare organizations restructure to address the new business realities driven by healthcare reform and delivery system transformation (DST), organizations need to reassess their data-mining capabilities around leading loss drivers that impact their employee's health and safety. With the right data and the right trending capabilities, safe patient handling claims can be easily dissected and solutions funded.

The need to develop a standardized coding methodology focusing on the sub-category of activity type associated with patient handling injuries is apparent as there is currently no national standard regarding the way these claims are coded in a Risk Management Information System (RMIS). This leads to time consuming efforts to extract key trending and cause analysis for meaningful solutions.

This is applicable to overall workers' compensation management as well as risk, safety practitioners and occupational health professionals concerned with preventing safe patient handling and mobility injuries. Currently the mechanism to track injury types and occurrences are neither healthcare specific or customized by individual stakeholders, and there is a lack of standardization available at the detail level to provide easily identifiable and actionable data. Table 1 shows a snapshot of a RIMS loss run for a healthcare organization. The vague nature of both the injury description and cause description provides little intelligence on the tasks performed at the time of the injury (e.g. transfer type, toileting, bathing, etc.). This is a significant blind spot for safe patient handling professionals and the need for improvement on a national level is evident.

**Table 1: Snapshot of a RIMS loss run for a healthcare organization**

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
SHOULDER(S)	RUPTURE	STRAIN OR INJURY BY - LIFTING
SPINAL CORD (BACK)	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - LIFTING
DISC	MULTIPLE PHYSICAL INJURIES ONLY	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
KNEE	STRAIN	STRAIN OR INJURY BY - LIFTING
ELBOW	ALL OTHER CUMULATIVE INJURIES, NOC	STRAIN OR INJURY BY - REPETITIVE MOTION, (CARPAL TUNNEL SYNDROME)
SPINAL CORD (BACK)	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - USING TOOL OR MACHINE
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - PUSHING OR PULLING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - LIFTING
DISC	STRAIN	STRAIN OR INJURY BY - LIFTING
LOWER BACK AREA	STRAIN	STRAIN OR INJURY BY - REACHING
SHOULDER(S)	SPRAIN	STRAIN OR INJURY BY - LIFTING

## **Current State: The Era of BIG data**

Claims administrators, be they self-administered or administered through a third party, require the ability to pare down injuries in detail in order to provide information focused on cost and frequency. The data available through loss run or other high level data output lends itself to only a general understanding of cause (See Table 1) and true mechanisms of injury undetected. The technology is available via Risk Management Information System (RMIS) to effect change, but it cannot be productively utilized without changing and improving what we capture. Small, incremental changes will make patient handling claims/injuries more transparent, actionable and create a best practice in the industry while having long lasting benefits.

There are currently multiple methodologies used to attempt to address the transparency to bring safe patient handling claim trends forward. These include:

- Manual reviewing narrative reports to ascertain cause, associated circumstances and activities performed at the time of injury
- Creating manual methods to map injuries with specific sites within a facility
- Using the NIOSH coding system to track patient handling incidents
- Creating and using customized codes specific for a healthcare system or facility
- Benchmarking national research reports that take years to publish

The above attempts at transparency are generally labor intensive and may be highly burdensome. In the environment where human resources are stretched thin and patient and staff safety have become a national priority, the current state requires change.

## **Safe Patient Handling Claims**

Injuries to patients and residents regardless of the environment and healthcare setting have reached such proportion that this has created a national call for action as demonstrated by several legislative bills introduced and passed into law over the last few years. In addition, the American Nursing Association (ANA) has issued an inter-professional national standard with the goal to put an end to these life altering and career ending injuries. The Occupational Safety and Health Administration (OSHA) points to manual patient handling as the cause of the high incidence and severity of injuries in the healthcare industry (OSHA, 2003). In 2013, the most frequent national, nonfatal occupational injuries and illness, as well as injuries and illness requiring days away from work, transfer, or light duty, were within health care and social assistance categories (Bureau of Labor Statistics (BLS), 2014). BLS data for 2013 demonstrate this impact on caregivers. Nursing Assistants and Orderlies accounted for 208 and 241 nonfatal injuries and illnesses resulting in lost work days per 10,000 full-time workers, approximately three times that of those in the construction industry and similar to that of firefighters. (Figure 1) Compounding the personal and organizational impact of such severe injuries, the cost of these injuries is profound (Institute of Medicine Report from the Committee on Advancing Pain Research, Care, and Education, 2011).

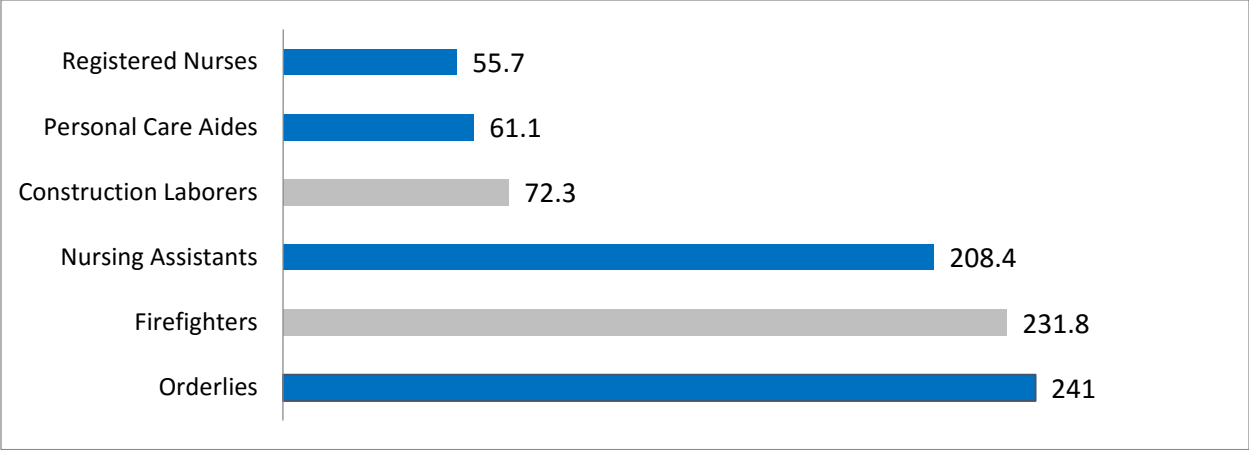


Figure 1: BLS Musculoskeletal Injury Rates (2013)

As noted above, injuries to those that provide the essential care to those that are infirmed in our society are clearly significant. The average Certified Nursing Assistant, those individuals that provide the majority of direct patient care, averages 4.5 injuries per person per year according to a study by Khatutsky et.al 2012. However, while the study listed patient handling as a key loss driver, they lacked the ability to define cause of or activity involved in these types of injuries (toileting, repositioning, etc.). This lack of easy drill down on a sub-category level is a significant disadvantage for many safe patient handling professionals. Despite our ability to document that the injury took place, we currently do not have a method to quickly identify in detail the activities that were being performed at the time of the injury on a cumulative basis. Without that detail, there is no mechanism to facilitate implementation of effective Safe Patient Handling and Mobility Programs using RMIS data. Practitioners are left with manual, time-consuming data crunching processes.

**The Problem**

Currently there is a significant lack of easily accessible, detailed causative factors related to SPHM incidents available to healthcare sectors and stakeholders on a cumulative level. SPHM causality data is generally a labor intensive data extraction effort using manual processes. Without these key elements justification for the financial support of development, implementation and maintenance of SPHM programs will be prolonged or may not be attained.

*The collection and reporting of patient handling and mobility injuries must be easily implemented, concise and user friendly; therefore, also sustainable. Above all, this proposed collection and reporting of more detailed standard data elements associated with patient handling and mobility injuries must also address the realities of the normal working environment and the various documentation requirements posed to the practitioner on a daily basis. In the era of big data, we must simplify the approach.*

**Future State: Keep it Simple and Transparent**

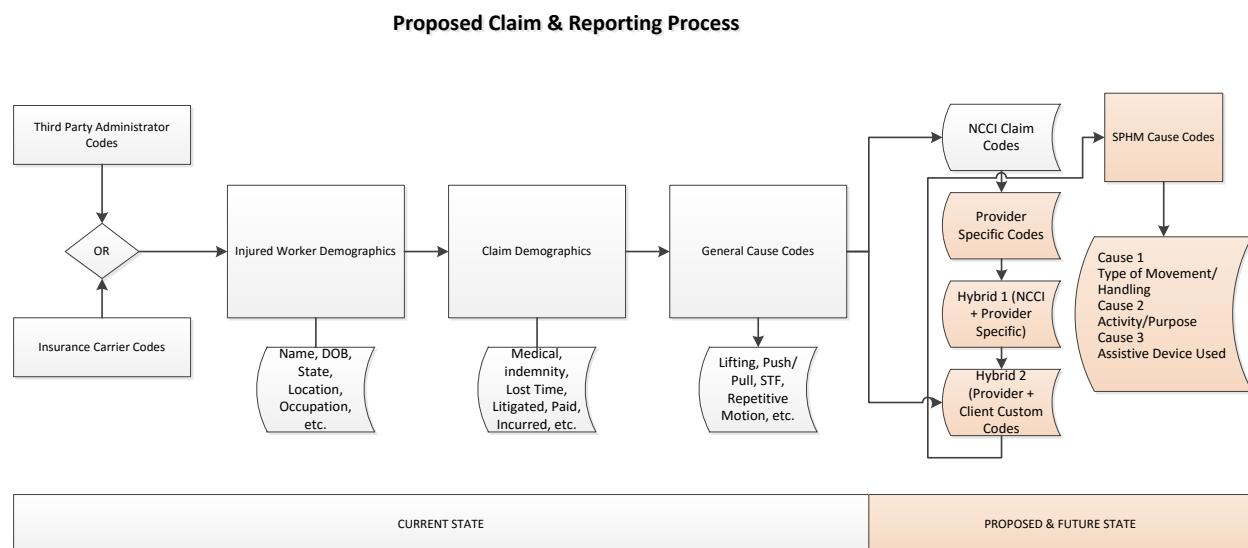
Figure 2 below, provides a basic workflow for any healthcare system that self-administers or uses a third party to investigate and adjudicate claims. Under the current workers’ compensation structure within the

United States there is a lack of uniformity across casualty claim service organizations related to SPHM injury identifiers which prohibit the ability to effect change through either benchmarking or modeling at the local, regional and national levels. These critical data elements promote effective resource allocation, pre and post loss program development and program implementation. Some of the key data elements that are currently not documented range from the most obvious to other notable elements that provide information to propel effective change and mitigate costs of these pervasive and many time debilitating injuries.

Other categories used to define the specific types of movement and activities will create consistency across self- administered/Third Party Administrator platforms and create the much needed transparency for better injury cause identification and implementation of relevant, impactful solutions tied to the visible trends. This provides a mechanism to quickly and credibly identify a host of benefits:

- Trend injuries by patient handling task/activity, i.e. repositioning in care, limb holding, toileting, vehicle transfers
- Identify predictive causes of injury
- Track frequency of specific injury types
- Effectively simplify Big Data into actionable elements
- Measure return on investment with Safe Patient Handling and Mobility Programs
- Identify impact of patient handling and mobility equipment and programs
- Add additional dimension to the description of injuries
- Provide a method to benchmark outcomes
- Develop a sustainable best practice

Clearly the benefits demonstrate the need for moving forward with a simplified methodology. This approach will have a broad appeal as it closes a significant gap in the scope of the data being collected and allow SPHM professionals to compare data across peer groups in a consistent manner. This will also streamline RMIS coding constructs and allow providers to set up identical coding for all health care related clients.



**Figure 2: The Current and Proposed Future State of Patient Handling Injury Coding Capture**

There are three additional categories that we are proposing to be added into the intake process and RMIS systems that will have a profound impact on the ability to extract actionable data elements. By instituting standard coding of the Type of Movement/Handling, Activity/Purpose and Assistive Device Used, SPHM healthcare companies can retrieve actionable data from their claims administrator or internal systems. The proposed national standard for these additional codes is shown in Table 2 and comprises a simple, yet easily implemented coding structure to add increased value to the claims intake and reporting process. By adding these critical categories, the benign loss run categories of “Patient Handling” or “Strain-Pushing/Pulling” for example, bear more meaning and record vital information.

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



The column headings remain with the choices as drop down choices (when used as an electronic version or as data fields are set up. If there is a need to use a paper version, the choices may be circled!

**Table 2: Proposed Sub-Codes**

Codes in Table 2 are sub-codes that are to be viewed/considered in drill-down fashion, *that used in combination* will provide a detailed “picture” of the injury that was experienced by the caregiver when the subject was performing a specific patient handling and movement action for a specific patient/resident need or purpose. Ultimately, the data will also provide the information that may point to a single causative factor that encouraged/mitigated that injury: the use, non-use or incorrect use of a patient handling and mobility assistive device.

### **Stakeholder Value**

Evidence-based information clearly demonstrates that certain categories of data analysis results are linked to cost drivers. It is important to leverage that information to build additional components which are impacted by the availability and utilization of consistent and specifically focused data elements.

Understanding the collection, reporting and data available to SPHM injury stakeholders and the impact that it will have on insight and understanding of on-the-job caregiving injuries in relation to these

categories, listed below, will overall assist and improve the SPHM program functioning and the negative effects of unnecessary SPHM injuries in a facility or system.

	Risk /Safety Manager	Safe Patient Handling Coordinator	Employee Health and Safety	Human Resources	Chief Nursing Officer	Chief Financial Officer	Insurer/TPA	Care Givers	Educational Entities	Regulatory/Governmental	Healthcare Organizations
Data Integrity and Consistency	X	X	X	X	X	X	X		X	X	X
Benchmarking	X	X	X	X	X	X	X		X	X	X
Predictive Analytics	X	X	X		X	X	X		X	X	X
Claims Management	X		X	X		X	X			X	
Capital Equipment Purchase Justification	X	X	X		X	X			X		X
SPHM Program Operating Cost Justification	X	X	X		X	X			X		X
Direct and Indirect Operational Costs	X	X	X	X	X	X					X
Identification of Specific Cost Drivers	X	X	X		X	X	X			X	X
Labor Retention and Recruitment Efforts		X	X	X	X			X			X
Patient Safety and Quality of Care	X	X			X	X	X	X		X	X
Development of Best Practices	X	X	X		X			X	X	X	X
Quality Improvement Programs	X	X	X		X			X			X
Caregiver Safety	X	X	X	X	X		X	X		X	X
Public Relations and Brand Protection				X	X	X					X

**Table 2: List of stakeholder benefits and corresponding details**

When the grid above was developed, each of the named stakeholders’ perspectives was assessed through their own respective lens. We were able to label a value position for all of the stakeholders with the exception of the caregiver. While the caregiver may be considered the nucleus of the SPHM movement, their passion for the subject is not driven by numbers. This particular stakeholder’s valuation was particularly unclear and thereby could not be accurately assigned a label.

In order for the reader to clearly understand how standardization of coding will impact each of the named stakeholders, we offer a brief description and situational illustration for each label.

## IMPACT OF CODING IMPROVEMENTS

**Data Integrity and Consistency** – Accurate, complete and concise capture and report of all requested data elements. Without standard data elements that are practical to obtain and easily recorded, the risk of incomplete and inaccurate information increases, reducing the possibility of any analysis or conclusions to be drawn organizationally or nationally

**Benchmarking** – Comparing one's SPHM program and [performance](#) metrics to industry bests or [best practices](#). Comparative analysis provides a point of reference to internal and/or global results which may be either compared or assessed. Benchmarking provides a method through which each organization/facility may measure its SPHM program success against others'; providing information in order to facilitate change.

**Predictive Analytics** - Extracting information from existing data sets in order to determine patterns and predict future outcomes and trends. Through the use of a set of standardized data elements, these trends may be used to draw sound conclusions and provide direction for future program decisions, such as determining SPHM program and equipment needs.

**Claims Management** - Advice or services related to claims for compensation, restitution, for loss or damage, due to injury or illness incurred in the practice and performance of patient handling and mobility activities. Standardized data elements provide claim managers valuable information in order to complete a thorough investigation and adjudication of each claim.

**Capital Equipment Purchase Justification** – Typically Capital Equipment is defined as items of considerable value that have durability, that are used to provide a service or increase revenue over the lifetime of the item; this may also be considered a tangible corporate asset. In the context of the subject at hand, the justification of capital equipment purchases may be considered the more significant obstacle to development of a SPHM program. Data collected as a result of customized coding, identifies cost drivers which in turn provide justification and validation for SPHM program capital expenditures.

**SPHM Program Operating Cost Justification** – Operating costs are expenses related to the operation of a business, or to the operation of a device, piece of equipment, or facility. They are the cost of resources used by an organization to maintain its existence. SPHM Program and equipment costs are considered operating costs. In healthcare, there is much competition for these funds. For this reason, there must be iron-clad justification/s for SPHM program and equipment costs. SPHM justification must include direct and indirect SPHM operational costs including equipment, staff training, staffing, and others. As well, benefits and cost savings for both patients and staff must be included. Staff cost savings relate to decreases in the rate of injuries, lost time, and modified duty injuries. Decreases in patient adverse events result in huge cost savings for an organization when there is an effective program.

**Direct and Indirect Operational Costs** – Direct and Indirect Costs of WC Injuries – Direct costs of medical care (including rehab), indemnity (lost wages) and legal services are only several line item expenses to consider when assessing the fiscal impact of a musculoskeletal worker's comp injury incurred due to safe patient handling and mobility activities. To be included with these obvious, core costs are other expenses that must be accounted for when evaluating at the entire monetary effect of these injuries. Professionals also acknowledge injury indirect costs which include: wages paid to injured workers for absences not covered by WC insurance, administrative time to investigate the incident and perform other related supervisory duties, employee training and costs for replacing the injured workers, lost productivity and accommodation of injured workers. While specific stakeholders are able to utilize data on certain line items to provide financial and other useful information, all stakeholders need to see the full picture of how SPHM injuries can affect the facility's fiscal health and overall employee satisfaction.

**Identification of Specific Cost Drivers** – Specific and identifiable activities or actions that have been identified to have costs associated to them. Customized coding will provide detailed and activity descriptions to allow quantification of data and associated costs resulting from injuries.

**Labor Retention and Recruitment Efforts** – Labor Retention and Recruitment Efforts – Data supports the fact that successfully competing for educated, trained and experienced healthcare workers in today's market does not just depend upon wages, salaries, benefits, work shifts or available days off. Musculoskeletal injuries, cumulative or traumatic, have a significant effect on the professional and personal lives of the injured. Some injuries can disable and/or destroy a career. Competent caregivers also acknowledge that their safety and health closely relates to the welfare of their patients/residents. Having a SPHM program in place within a culture of safety demonstrates to the recruit and affirms to the current employee that the facility supports and protects them.

**Patient Safety and Quality of Care** - Currently, organizations must pay for negative patient outcomes related with hospital stays. More and more evidence points to the importance of mobilization of all patients in the recovery process, and utilization of patient handling equipment facilitates this. Falls, skin breakdown, UTIs, pneumonia, and other hospital acquired injuries/illnesses are positively impacted when SPHM Programs foster use of equipment.

**Utilization of Best Practices** – There are tried and true processes for SPHM Program development, implementation, and maintenance. The ANA Safe Patient Handling and Mobility Interprofessional National Standards relay those that national experts agree upon. As well, the VHA has the largest and most successful SPHM program in the U.S., incorporating best practices found to be valuable in other organizations as well. When these best practices are supported, both patient and staff injuries are impacted positively.

**Quality Improvement Programs** – A specific and defined process-based, data-driven approach to improving the quality of a product or service. In the context of this paper, patient handling injuries drive many of the quality improvement programs' focus. Customized coding will provide a consistent methodology from which data may be obtained and analyzed in the context of performance based measurements.

**Caregiver Safety** - Occupational health and safety programs continue to identify risk factors and specific interventions to mitigate injuries due to patient handling. Rates of musculoskeletal injuries from overexertion in various healthcare settings are amongst the highest when compared with other industries. A primary focus of this paper is to identify those data elements which will provide sound and reproducible data to drive the continued development and improvement of SPHM programs.

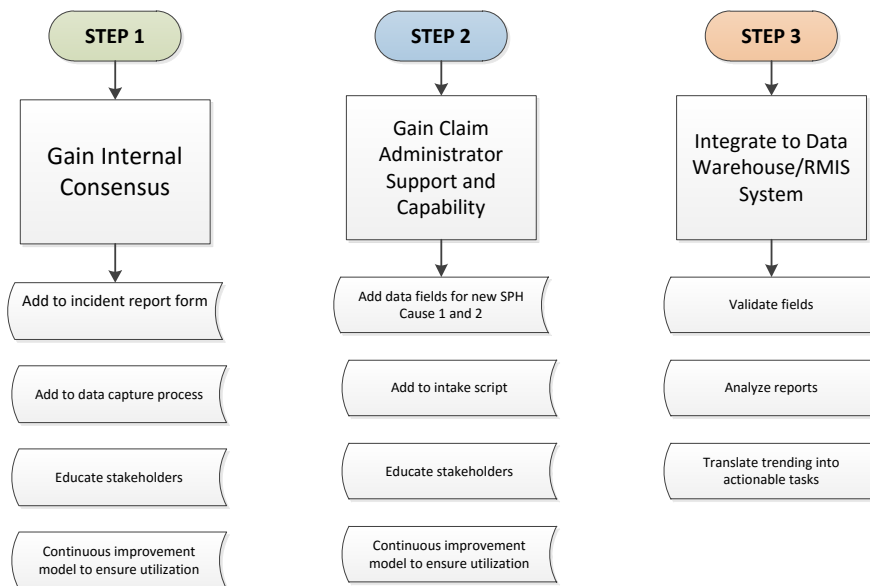
**Public Relations and Brand Protection** - Public Relations and Branding – Today's communication systems provide immediate and updated information to the consumer seeking products or services. These systems, whether newswires or social networking sites, provide the conduit for widespread public relations and positive branding. Public acknowledgment and reporting of the SPHM program developed, installed and maintained in the facility bespeaks the culture of safety that has been promoted and secured by administration. Knowledge that the facility cares not just for the patients/residents but also for the employee focuses on the humanity of the healthcare entity and instills consumer trust.



## Engagement Blueprint

To gain consensus and buy-in for consistent sub-coding the strategy is to first think and act locally, then move to global applications. Figure 3 shows a simple process for adopting the proposed category in a gradual yet meaningful way. Step one involves adding this code to the incident reports and other data capture processes to get these consistent points adopted on the front end. As with any change, stakeholder education is critical and essential. Step two and three is at the administrator level whereby stakeholder gains support to institute the new coding on the back end RMIS or other data capture systems. Intake scripts, for example, would need to be adjusted to include the new coding to ensure these questions are answered at the claim reporting level. Because the new coding is simple in nature, there should be minimal impact to a data warehouse/RMIS system.

**Blueprint for Engagement Strategies**



**Figure 3: Three step process for integrating codes**

## A Move to Action

Early adopters of more detailed coding practices have clearly demonstrated a positive impact on overall loss costs when compared to those that have yet to embrace this practice. These organizations are likely to garner peripheral and certainly significant benefits such as staff retention, attraction of clinical talent in an environment with skilled nursing and medical professional shortages and productivity drains to name a few. However, administrators require tangible metrics to support the business case for development and maintenance of robust safe patient handling and mobility programs.

Ongoing state legislative actions are gaining momentum to encourage development, adoption and standardization of programs. Federal adoption and support of Safe Patient Handling and Mobility Standards and practices have yet to be enacted. This movement will likely continue. However, without a

standard from which to measure outcomes, comparison and trending, we shall continue to experience enumerable losses. As we move forward, stakeholders will need to take a pragmatic and incremental approach to engage all of the participants in the process. As engagement increases and results are measured, further expansion of codes may be introduced as practically appropriate.

## **Conclusion**

Fundamentally, caregiving is a humanitarian effort based upon respect and concern for others. As science and the ability to treat and cure has progressed through the years, longer lives lived with chronic, debilitating and frail conditions and the needs for more challenging rehabilitation efforts have resulted. The caregiving workforce, along with their patients/residents also ages. And more than ever, the condition of the “bottom-line” is tenuous and difficult to control.

It can easily be acknowledged that the implementation of a successful safe patient handling and mobility program, led by an expert in the field and supported by others who are educated and experienced in the scope and practices of the program, makes a significant difference in the health and welfare of the caregivers, the cared-for and the service providing entity.

Be reminded of the Value Proposition grid and of all of the ways that safe patient handling and mobility injuries can negatively affect lives, jobs, and the bottom line. The call for Standardized Coding herein is simple and easy to implement so that you and your colleagues can maintain the practice and contribute meaningfully to decreasing staff injuries, improving patient/resident care, and prolonging solid careers.

With inclusion of the proposed categories, improved data and its analysis will be consistent and available to all; providing the information that is needed to improve your safety programs. The technology of assistive and necessary patient handling and mobility equipment is available and will continue to improve when the exact needs for the implicated tasks are consistently coded and brought to light.

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## Disclosure Statement

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All of the authors of this white paper are members in good standing with the Association of Safe Patient Handling Professionals (ASPHP) and serve as Board members and the Executive Director of the organization.

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**Please share your comments about this White Paper.**

The authors will find it helpful to identify the value in their work and issues that provoke discussion regarding the content of this paper.

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Submit your comments to [info@asphp.org](mailto:info@asphp.org) by end of day **March 25, 2016**. You may also discuss the paper with us at the ASPHP booth at the Safe Patient Handling and Movement Conference in Glendale, AZ during the week of April 11, 2016.