MAKING THE CONNECTION BETWEEN INJURY PREVENTION AND CLINICAL PRACTICE

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INTRODUCTION

Employee injuries to healthcare workers have consistently been a significant problem throughout the history of professional nursing. Though the vast majority of these injuries are directly related to lifting and moving patients, industry leaders have struggled to create effective patient-lift strategies necessary to protect worker's safety. Over the years, there have been varying thoughts and opinions for how to best address this injury epidemic. In many cases, unsubstantiated lifting techniques and practices have been implemented as acceptable standards of clinical practice throughout many organizations. To date, many of these traditional lifting techniques and methodologies inclusive of "proper" body mechanics have proven ineffective towards preventing musculoskeletal injuries to healthcare workers. These body-lifting techniques remain unfounded as effective injury prevention strategies for healthcare employees. We know this because injuries to nursing professionals rank as the highest amongst any group of workers in the U.S. Labor Force.

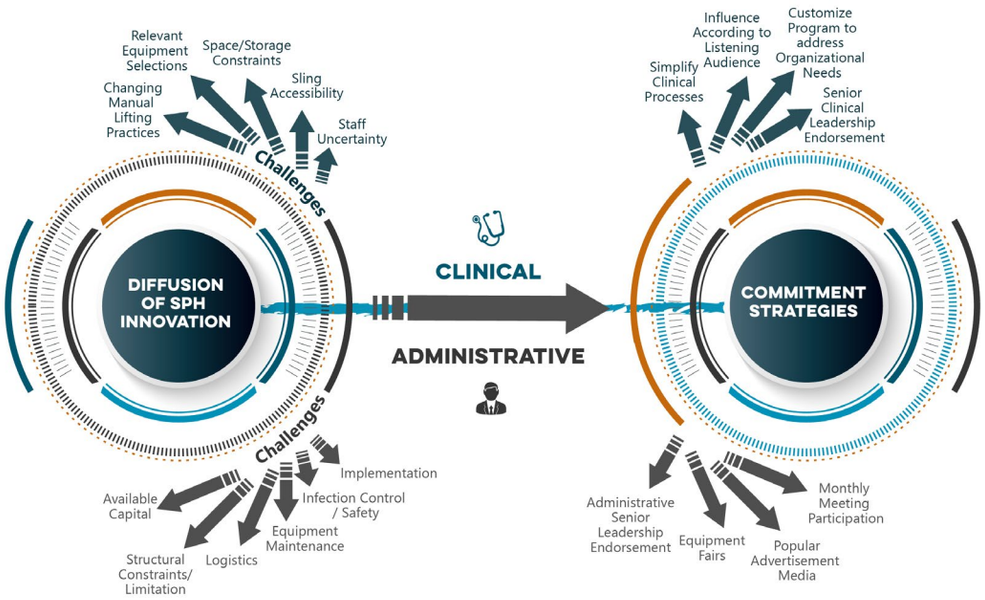
A TWO DIMENSIONAL PROCESS

Recently, a more modernized, innovative approach for reducing patient-handling injuries to healthcare workers has been introduced to hospital safety. Not only have the results been researched, validated and proven, but employee safety and working conditions have improved dramatically in facilities where this evidence-based approach has been successfully implemented. This innovative process is two dimensional and consists of interdependence amongst one another in order to be effective. The first dimension includes the diffusion of clinically appropriate patient-lift equipment into patient practice settings. The second dimension consists of creating a supporting clinical infrastructure which focuses to modify routine nursing patient-lift practices into strategically guided patient-lift processes which utilizes mechanical lifts to lift patients; or comprehensive Safe Patient Handling programs.

Historically, earnest attempts by organizations to protect workers through the purchase of patient-lift equipment alone have consistently failed to achieve its intended purpose. Though purchasing equipment is an important initial step towards implementing injury prevention programs specific to nursing practice, equipment unaccompanied only addresses one of the two needed process dimensions. When the process's second dimension (supportive clinical infrastructure) is excluded, the resulting consequence often include organizations having spent significant sums of money on patient-lift devices but adding limited to minimal value in return. This too often leaves many organizations to question less than optimal program results especially when significant financial investments have been made. Should healthcare organizations refocus their efforts towards implementing this two dimensional injury prevention process, it would create the type of results needed to justify patient-lift equipment and Safe Patient Handling program investments. Through implementing a successful program whose focus emphasizes the facilitation of staff's commitment to using patient-lift equipment to care for their patients, the opportunity to decrease and sustain injury risks long-term becomes an even greater probability. Nevertheless, clinically

driven strategies required to successfully maneuver machines into clinical practice processes requires the appropriate process expertise in order to achieve optimal results.

DIFFUSION OF EQUIPMENT INNOVATIONS



UNDERSTANDING EQUIPMENT—

Understanding the dynamics that exists between medical technology and clinical practice is essential to creating a practical blueprint for integrating patient-lift devices into patient care settings. Whereas patient lift technology has consistently proven to perform to its intended standards and specifications, also needed is an understanding for how to get the most out of equipment investments through designating patient-lift technology to clinical areas specific to its patients' mobility limitations. In considering the implementation of patient-lift devices throughout a hospital organization, it is important to understand the various types of patient-lift equipment to include their functional capabilities. All too often, quality patient-lift devices due to a lack of functional understanding are inappropriately distributed to patient care units where equipment functions are either limited or irrelevant to patients at the point-of-care. Not only does this create end-user doubt in terms of its relevance to patient care, but consequentially it increases the likelihood of staff choosing not to use patient-lift equipment leaving the more traditional high risk patient-handling techniques as the only other alternative.

There are 3 major categories of patient-lift equipment in which varying equipment models are grouped. They include: Total Assist Equipment, Moderate Assist Equipment, and Lateral Transfer Devices. Though these three groups are intended to address three distinct levels of patient mobility limitations, it does not necessarily mean that patients are limited to any one particular group or the other with the exception of most Moderate Assist Equipment.

When considering the appropriate designations for patient lift equipment, Total Assist Equipment would be most beneficial in clinical areas where the following patient care tasks take place: turning-and-repositioning patients in bed, transferring patients from bed to stretcher, and lifting patients from bathroom toilets and or bedside commodes. Without this level of equipment available, patient handling duties specific to the above-mentioned tasks would require extensive physical man-power while significantly increasing

injury risks to workers. For patients in long term care environments or rehabilitative care settings, Moderate Assist Equipment used for active and passive ambulation as well as self-mobilization is most appropriate. Such devices are also relevant in post-operative, surgical care environments which too can be used to effectively assist in reducing the number of hospital day's post-surgical procedures. Lateral Transfer Devices are more commonly seen in Operating Rooms or other procedural areas such as Cardiac Cath Labs and in diagnostic departments like Radiology. These patient handling devices are also strategically distributed throughout in-patient and out-patient care settings as supplementary pieces to those units' primary patient-lift equipment.

Understanding the functional purposes for which patient-lift equipment is intended improves the likelihood of getting the most out of capital equipment investments. Additionally, when equipment selections align with patient care priorities, staff is more likely to consider patient-lift technology as a valuable resource that improves patient care outcomes. Through making patient-lift innovations central to patient care, clinical end-users are more likely to turn to patient-lift equipment to care for their patients. This ultimately lends to serving its original purpose of protecting employees from debilitating injuries. It is through this perspective of introducing mechanical innovations into clinical practice does it become possible to reduce employee injuries related to moving and handling patients.

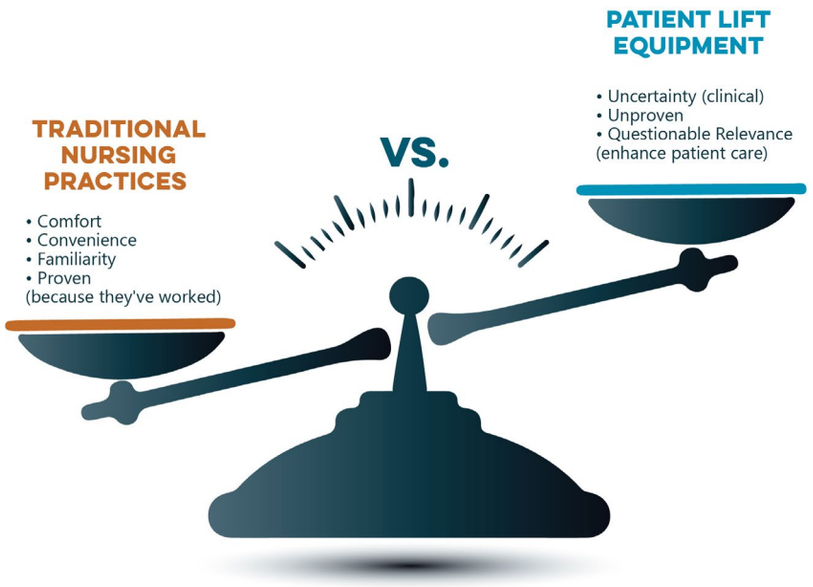
CLINICAL PRACTICE AND PATIENT-LIFT INNOVATIONS

The need to consistently emphasize the pairing of mechanical lifts to clinical professionals is important as it relates to getting the most out of patient-lift investments. The reluctance that exists between patient-lift innovations and traditional nursing processes can be dated back to an original nursing ideology which included a "hands-on" based skill-set approach; many of which are practiced by professionals and paraprofessionals to date. Despite the advancement of traditional nursing practice into a more theoretical scope of practice, particular attention placed on more basic practice concepts remains an informal measure for evaluating a nurse's ability to fulfill the physical requirements that are typically associated with prudent patient care. More formally, these physical requirements are consistently reinforced through academic curriculums which remains rooted in teaching outdated, manual patient-lift principles.

In understanding what it means to be a clinical professional, this description represents a type of healthcare employee whose practiced skill-set is performed specifically to account compassionately for the well-being of other human beings. Given the liability associated with such a responsibility, nurses carefully guard practiced skill-sets meaning that experienced clinical professionals over time learn to trust and believe in their practice techniques. This also includes those skill-sets learned for manually lifting patients. Many clinicians are taught to lift patients through applying "proper" body mechanics not knowing that these principles have never been proven to prevent injuries related to lifting and maneuvering humans weighing greater than 35lbs. Whereas this not only explains why nurses have twice as many injuries related to overexertion than does any other U.S. worker, it further validates why often times nurses because of what they've been taught will either consciously or subconsciously consider the risks of mal-practice before ever considering any physical harm that they may potentially bring upon themselves.

Through approaching the diffusion of patient-lift equipment from a patient-centered process perspective; the opportunity to create realistic practice changes related to patient-lifting is improved significantly for strategies that are consistent with patient safety are more likely to incentivize clinical staff to commit to using patient-lift technology. Furthermore, through the creation of such strategies, it validates the implicit need to acquire a program expert who possesses adequate clinical knowledge of bedside nursing practices making it

plausible for new processes to be seamlessly transitioned into the daily workflow of patient care. This philosophy describes a "best practice" approach which represents the best opportunity to successfully transition patient-lift equipment into nursing practice processes. This overall approach is important given that the work culture of professional nursing emphasizes timely care meaning that workers are less likely to consider practice processes that are perceived to be non-beneficial and/or slows down work performance. Additionally, implementing patient-lift equipment into nursing processes must not create excessive steps but instead must simplify what is already considered to be complex work. The overarching challenge for any process expert consists of converting the mind-sets of caregivers to acknowledge that utilizing patient-lift equipment is no longer the trendy exception but instead the practice expectation.



PROCESS EXPERTISE

In all that has been discussed in the preceding paragraphs, perspectives remain no more than theoretical concepts without the expertise required to transition those ideas into actionable solutions. As it relates to Safe Patient Handling process expertise, an experienced implementation professional whose background includes bedside nursing practice is most appropriately positioned to coordinate the program's core which includes the nursing and logistical processes needed to accommodate patient-lift equipment in patient care areas. It is through that bedside nursing experience which allows the expert to not only be familiar with clinical processes within the immediate work environment, but also be familiar with the various support services that inpatients often require when admitted into the hospital.

Initiating the implementation process should begin with an organizational assessment to determine the facility's overall level of readiness to undertake a comprehensive injury prevention project. An experienced process expert is especially beneficial in this initial phase given the importance of identifying any on-going or future hospital initiatives that could interfere with the injury prevention program's progression. Injury data analysis specific to employee patient handling injuries to include what nursing tasks were being performed and where the patient handling injury occurred, represent a viable starting point. Based on information gathered in the initial phase, realistic timelines with measureable benchmarks are set which assists in keeping the organization engaged throughout what typically results in a 2 year process for system implementations. This level of information is important to determining whether implementations are initially rolled out over the entire organization, or in increments which consists of units or sections at a time. Assessing both clinical and hospital administration's commitment to overseeing a program's implementation from start to finish is important being that staff is more likely to engage at a capacity similar to their leaderships'. This

would also be the right time to bring forth recommendations related to the program's hierarchy in terms of how the injury prevention program should be aligned in respect to the other departments within the organization.

When implementing injury prevention programs within hospital organizations, it is important to understand which employees are more likely to be impacted by patient handling injuries. Given the general algorithm beginning with patient admissions to patient discharge, patients admitted into hospital settings are more likely to spend most of their hospital stay under the care of bedside nurses (registered nurses, licensed vocational nurses, nursing assistants, and health technicians). It is the reason why patient handling injuries disproportionally affect nursing personnel at a higher rate than does any other hospital staff. It correlates with the fact that nursing staff in hospital settings is more directly involved in patient care at the point-of-care. To emphasize such points is to only point out the significance for creating an injury prevention program whose structure aligns directly with the causative factors of patient handling injuries. This philosophy is centered upon a belief that the most efficient methodologies for achieving optimal Safe Patient Handling (SPH) program outcomes emanates from the program's ability to achieve end-user's commitment to using patient-lift equipment. With those end-users being mostly nursing staff, staff's commitment to using patient lift equipment will be equivalent to their Nurse Manager's motivation towards implementing the initiative.

In order to successfully facilitate an injury prevention program such as Safe Patient Handling, the top clinical nursing administrator or Chief Nursing Officer (CNO) has to believe that injuries related to patient handling is an important enough concern to merit an implementation process which seeks to modify traditional point-of-care processes. Should the CNO place this concern as a practice priority, the flow of communication and information now has the ability to move in accordance with most Organizational Charts giving all process details the best opportunity to reach "front-line" staff employees. Without nursing's involvement in an injury prevention program aimed at changing the way nurses practice patient care, creating a long-term program which consistently reduces patient handling injuries become more difficult and less likely. By allowing nurses a voice in how traditional practice processes are reconfigured, the best opportunity to gain the level of commitment needed is generated through nursing's involvement in modifying outdated patient-lift processes with the intent of making them safer. This evidenced based practice resembles organizations of Magnet Status given that the Nursing Department's oversight ensures that processes involve staff at the most basic levels of patient care.

Cost	Program Process	Vendor Selection
• Appropriate Equipment Selection • Slings (Reusable or Disposable) • Equipment Cost/ Room/Unit • Portable Equipment or Overhead Ceiling Lifts *Trialing equipment can prevent long-term wasteful spending.*	• Strategy based decisions that are clinically practical • Accessory Availability (Slings) • Sling distribution and par levels; laundry or logistics • Clinical assessment tools • Maintenance program • Cleaning Processes • Clinical decisions regarding leaving slings on patient beds throughout duration of the hospital stay versus removing them.	• Decisions to standardize facility with equipment from one vendor vs. multiple vendors • Warranty and Maintenance agreements • Willingness to trial • Willingness to develop or create maintenance programs • Company policy for using other manufacturer's slings • Special or unique equipment features • Complies with Electrical Standards or Certifications

CONCLUSION

Injury prevention programs fundamentally are created with the intent to provide calculated measures aimed at alleviating specific contributing factors to the injuries that are targeted. Given the usual circumstances surrounding musculoskeletal injuries to nursing professionals, manually maneuvering human body weight creates a very unique safety risk requiring specific and deliberate manipulation to traditional nursing practice processes which happens to be the causative factor. The complexities which accompanies nursing practice requires that injury prevention programs within these arenas produce an operational structure with well-defined injury prevention objectives, processes that are both pertinent and practical to those objectives, and measureable outcomes that not only identify successes and failures, but also provides the type of information that can be used to realign strategies as needed. What tends to separate unsuccessful attempts at patient related injury prevention programs from programs which meet most of its intended measures is the delivery in which concepts are implemented to include how well the participants operating within the clinical culture adjust and adopt those concepts. This is what makes injury prevention programs created for clinical practice a necessary collaboration between the implementing organization and the skilled expert assigned to provide guidance and consultation.

Safe Patient Handling is a type of injury prevention system which specifically focuses on the safety of health care workers who are required to lift and handle patients in both hospital and long-term care settings. To adequately address injuries related to moving and handling patients to include the associated circumstances surrounding these type injuries, effective injury prevention systems must focus on selecting the appropriate patient-lift equipment while understanding the existing processes nurses use to lift patients. The uniqueness involved with replacing traditional caregiver-to-patient interactions that are clinically sensitive, with mechanical patient-lift devices requires a meticulous transformation of processes at the point-of-care. Unlike traditional ergonomic programs which primarily focus to modify work environments in an attempt to make them safer, Safe Patient Handling is intended to modify the skilled and practiced actions of clinical workers with the intent to make those practices and processes safer. This further explains the complexities of such injury prevention programs given that implementation techniques to be effective must be specific and precise to the type of work performed by caregivers. The overall success of Safe Patient Handling programs is predicated upon the ability and skills of the injury prevention professional to set forth a practical program agenda. The process expert must successfully facilitate the necessary engagement required to result in end-users choosing to utilize mechanical equipment to lift and maneuver patients.

WHITE PAPER OUTLINE

Value Proposition: To implement sustainable safety and injury prevention systems aimed at reducing the risk of injuries to healthcare workers related to lifting patients.

"I implement injury prevention systems in healthcare organizations designed to reduce the risk of injuries to healthcare workers related to moving and lifting patients."

I. Introduction ***(nurses are frequently injured as a result of the manual labor associated with clinical practice)***

A. Nurses/ Healthcare professionals are the most injured group of on-the-job workers than any other working group in the U.S. Labor Force.
B. Current injury prevention methodologies such as practicing appropriate body mechanics have proven ineffective in preventing the type of musculoskeletal injuries acquired by healthcare workers.

II. A Two Dimensional Process ***(both program processes must function interdependently in order to create an injury prevention program that produces injury reduction results).***

A. Patient Lift Equipment: needed to replace the manual lifting of patients by healthcare workers which represents the causes for why workers are injured at a high rate.

1. Having patient lift equipment without strategic process methodologies to facilitate equipment utilization typically results in end-user underutilization leading to a minimal decrease in employee injuries and minimal returns on equipment investments.
2. Being that there are varying types of patient lift models, purchasing patient-lifts without understanding how it addresses patient's mobility limitations can also result in underutilization if equipment functionalities are inconsistent with patient needs.

B. Practice Process Implementation: strategically guided practice processes needed to secure end-user's commitment to utilizing patient-lift equipment.

1. Requires the appropriate process expertise which includes understanding practiced skill-sets nurses' use when caring for patients.
2. Represents the way in which mechanical lifts are integrated into clinical practice settings.
3. Established in such a way that new processes become rooted into the clinical culture meaning it becomes the practice norm for how patients are moved or lifted throughout an organization.

III. Understanding Equipment ***(significant component to creating successful implementations)***

A. Patient-lift equipment varies in functional abilities meaning each is created to address a specific patient mobility limitation: Inability to move or ambulate, able to move or ambulate with moderate assistance, able to move freely but requires minimal assistance to ambulate.

B. Equipment types must be relevant to the patient's mobility needs at the point-of-care which increases the probability that staff will use equipment.

C. Equipment Categories:

1. Total Assist Equipment – clinical examples included
2. Moderate Assist Equipment – clinical examples included
3. Lateral Transfer Devices – clinical examples included

D. Equipment categories are created to simplify the implementation process.

E. Proper alignment of patient-lift equipment consistent with patient care priorities improves the likelihood of staff utilizing patient-lift equipment.

F. Making patient-lift equipment central to patient care is essential to creating a sustainable injury prevention program.

IV. Clinical Practice and Patient Lift Innovations ***(discusses the difficulties in changing or modifying clinical practice processes)***

A. Nursing performance is sometimes unjustifiably measured by the nurse's physical abilities to perform the physical requirements associated with prudent patient care.

B. Nurses spend their careers perfecting practiced skill-sets including practice techniques for manually moving and lifting patients.

C. Nurses throughout their careers learn to trust their skill-sets making it difficult to change practice processes all while considering practice liabilities associated with patient care. Nurses often times would much rather risk injuring themselves before ever injuring a patient.

D. Successful program implementations are more likely when guided by a process expert with significant bedside nursing practice experience.

E. Processes which include patient-lift equipment must be transitioned into clinical practice processes without adding to the complexities already involved in performing bedside nursing care.

V. Process Expertise ***(how successful injury prevention programs are created)***

A. Must transition theoretical philosophies and concepts into actionable solutions.
B. An experienced nursing professional with significant bedside nursing experience is most appropriately positioned to coordinate both the nursing and logistical processes needed to accommodate patient-lifts in patient care areas.
C. Process Experts should know of other competing clinical initiatives in order to understand how to position an injury prevention program so that it may avoid interruptions that interferes with the program's progress.
1. Initial organization assessments to include injury data analysis should be used to provide relative information for establishing timelines and benchmarks.
2. Implementation philosophy supports Safe Patient Handling Programs (SPH) to operate under the oversight of the Nursing Department.

D. Patient handling injuries are more likely to happen to nursing staff which correlates with the nurse's consistent involvement with patients at the point-of-care beginning on hospital admission.
1. In order to maintain and sustain a continuous SPH program, the programs structure must be created with nursing input for essential modifications to be made to nursing practice processes.
2. Successful programs which follow this model and places nurses at the center of the implementation process are seen in organizations with Magnet Status.

CONCLUSION

A. The purpose of injury prevention programs is to provide solutions to the contributing factors that result in employee injuries.
1. Maneuvering human body weight creates a very unique safety risk which requires specific and deliberate manipulation of traditional nursing practice processes.
2. Operational structures for injury prevention programs in clinical practice require well-defined objectives, pertinent and practical processes, and measureable outcomes.
3. Safe Patient Handling programs must maintain a continuous collaboration between the organization and the process expert.
B. Effective injury prevention systems must focus on selecting the appropriate patient-lift equipment while understanding the existing processes nurses currently use to lift patients.
1. Safe Patient Handling unlike traditional ergonomic programs focus to modify actions of clinical workers opposed to altering the environments in which they work.
2. Process experts must create and implement the type of strategies that facilitates caregivers' full commitment to using patient-lift equipment.