To Lift or Not to Lift: An Institutional Ethnography of Patient Handling Practices

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DEDICATION

This dissertation is dedicated to my parents

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In Liefde Verbonden

ABSTRACT

The handling (lifting, mobilizing, moving etc) of patients is an integral part of the carework in health-care institutions. For obvious reasons, this puts healthcare providers at risk for musculoskeletal injuries (MSIs); furthermore the risk of such injuries has been considered an inherent risk of care work. In the last decade a concerted effort has been made to decrease (with the goal of eliminating) caregiver injuries by implementing safe patient handling programs (SPHP). These programs are presented as evidence-based algorithms that require the use of mechanical lifting devices. Institutions implement SPHPs as policies and procedural guidelines to which caregivers must conform. SPHPs represent a change in institutional thinking from the earlier belief that MSIs were inherent to care work, to the contemporary idea that injuries are preventable. Despite these efforts, healthcare providers continue to be exposed to the risk of injury.

The assumptions underlying the SPHP are open to questions, none of which are addressed in the literature. Most importantly the literature does not take into consideration that healthcare providers are handling individual patients with subjective and unique needs. For the purpose of understanding why healthcare providers continue to be exposed to the risk of MSIs, the purpose of this study is to explore how the generic policies and guidelines meant to apply to all patient-caregiver interactions impact patients and caregivers in everyday care work. In particular, this study examines the complexity of care delivery on inpatient care units that have implemented the latest research recommendations regarding safe patient handling. This study starts with the assumption

that care workers are positioned at the intersection between the patient and the hospital policies and guidelines that govern their care. In order to understand the caregivers' continued exposure to injury, this study examines the work of caregivers during their shift and the policies and guidelines they encounter that impact their decisions.

This study is an Institutional Ethnography (IE), a unique research approach that makes visible how complex actions in everyday care work are coordinated by institutional texts such as policies and guidelines. This research approach permits the researcher to make visible the connection between the actual day-to-day experiences of people and the organizational priorities as reflected in institutional texts.

This study was conducted in two healthcare facilities on neurology and rehabilitation units which had instituted SPHPs and had state-of-the-art lifting equipment. Two sources of data were collected for this study, the first were observations of every day lifting. It describes caregiver practice beginning with 1. A description of how caregivers obtain the knowledge they need to handle the patients encountered during their shift. 2. What occurs once the caregiver encounters the patient. 3. Their decision-making process used to determine how to transfer a patient. 4. How the transfers are brought into action, and 5. How this care is then documented and reflected in the patient's record. The second source of data were the institutional texts that impacted the handling of patients. These were identified by interviewing caregivers and managers and performing searches in institutional data bases.

Key findings of this study are that 1. Caregivers are subjected to multiple policies simultaneously that require conflicting actions, 2. The knowledge needed to handle patients safely is primary contextual knowledge of the individual patient, 3. The conflict between institutional texts is an important reason why caregivers continue to be exposed to risk of injury, 4. Practice that does not lead to adverse outcomes is invisible, only when problems occur does the practice become visible for the institution because of documentation requirements 5. Documentation is the primary tool for reflecting patient handling practices, yet the patient health record does not reflect actual practice but rather is a reflection of the institutional priorities. These finding have implication on actual documentation practices, health-care policy making and the moral impact on caregivers.

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CHAPTER 1

Introduction

It is not news that nurses often sustain musculoskeletal injuries (MSIs) when lifting and handling patients (Nelson, 2006). These MSIs have historically been considered an inherent risk to nursing work, largely thought to be caused by poor body mechanics (Owen, 2000b). MSIs incurred by nurses and other paid care providers are problematic for both the individuals who get injured and the healthcare delivery system. Injury rates to nurses and other caregivers run as high as 83 injuries per 200,000 work hours (Garg and Owen, 1992). The cost for all MSIs in the United States is estimated to be $13.2 billion (Liberty Mutual, 2004). Injured nurses suffer emotionally, socially and financially (Charney, 2004). Worst of all, after implementing interventions such as safe patient handling programs and passing the Minnesota Safe Patient Handling Law, caregivers continue to be exposed to the risk of injury and to get injured.

The handling of patients is an important part of the everyday work of caregivers. This work occurs in a highly complex and regulated work environment governed by multiple policies that originate in sources both internal and external to any given institution. The purpose of this study is to gain an understanding of the complexities that accompany patient handling. The study also seeks to create a greater understanding of why caregivers continue to be exposed to the risk of injury. To understand patient handling one must observe actual patient handling within a particular work environment and institutional context. This study approaches this issue by means of an Institutional

Ethnography (IE). IE is a sociological approach that seeks to understand and make explicit how complex human action, in this case, patient handling by caregivers in hospitals, is coordinated by various kinds of texts, including, for example, safe patient handling policies, hospital documentation procedures, and various regulatory requirements. To this end, the study addresses the following questions:

1. How do the complexities of care delivery and the particularities of any given clinical situation impact how a caregiver handles patients that may lead to exposure to risk of injury?
2. What are the primary institutional texts that influence caregivers' actions when handling patients?
3. How do institutional texts impact the everyday practice of patient handling?
4. What and how do caregivers document/communicate back to the institutions about how they handled patients?
5. How are organizational-level institutional texts impacted by trans-local institutional texts such as laws, accreditation standards, etc.?

An IE goes beyond the identification of issues that are problematic in the everyday work of people to examine how these issues are interconnected with and regulated by institutional priorities and mandates as reflected in institutional texts. The identification of the relationships between the texts and everyday practice, which are referred to as ruling relations, can assist in developing specific solutions to problems that have been

identified. In this study, it is expected that the IE will lead to a better understanding of the barriers to safe patient handling and suggestions for addressing those identified barriers.

This research is significant because although there is an understanding of specific high-stress lifting tasks for caregivers and how equipment can be used to decrease physical stress when performing those tasks, caregivers continue to be exposed to the risk of MSIs. The current approach to decreasing staff injuries has addressed only a small component of care delivery. Many states have passed legislation and appropriated millions of dollars to implementing a system which is based on installing equipment, establishing policies, and educating staff on the use of equipment without taking into consideration the complexity of care delivery. Because the complexity of healthcare delivery on caregivers has not been researched, the solutions proposed in previous studies continue to be inadequate and thus caregivers continue to be exposed to the risk of MSIs.

To provide the reader with the historic background of safe patient handling and the occurrence of MSIs in caregivers, Chapter 2 discusses the research described in the literature relevant to patient handling and the associated injuries incurred by caregivers. This chapter looks at the factors that have been described as increasing the risk to injury exposure and identifies disparities in the current state of knowledge. Additionally this chapter focuses on nurse injury reporting and explores possible explanations regarding injury trends. Understanding past approaches to patient

handling and the associated exposure of caregivers to injury is essential to understanding the context of this study.

Chapter 3 presents the theoretical framework upon which this study is based. The focus is on the development of Institutional Ethnography through Dorothy E Smith's work and its applicability in identifying problems that occur within institutions. It describes central concepts in Institutional Ethnographies, especially the role of institutional texts in everyday experiences and the identification of ruling relations. This chapter emphasizes the importance of beginning with and staying in the everyday experience as the source of knowledge.

Chapter 4 explains the significance of the problem of caregivers continuing to be exposed to the risk of injury and the lack of a clear understanding of the complexities of the healthcare system in which care is delivered. The purpose and aims of this study are detailed to provide a clearer understanding and appreciation of the everyday work performed by caregivers. This chapter explains how the data was obtained using observation, interviews and institutional texts in two Midwestern hospitals and gives an overview of how the data was analyzed and how these observations were then transformed into the contents found in Chapters 5, 6 & 7.

Chapter 5 offers the reader a number of narratives that reflect what the everyday care of patient handling looks like. The purpose of the chapter is to create an awareness of the complexity of patient handling and also to illustrate how caregiver-patient interactions

present themselves in unique ways, unlike the hypothetical models on which patient handling requirements are based.

Chapter 6 focuses on the institutional structures governing hospitals. It is only by understanding institutions and how they implement their goals and objectives that one can understand their impact on the everyday work of caregivers. It begins with a discussion of the care teams and the organizational structures that support and regulate those teams and then discusses the structures that support patients once admitted to hospitals. Finally, this chapter describes the institutional Safe Patient Handling Programs that are in place in both of the observed hospitals and how these programs have been formed by legislation. This chapter specifically focuses on those organizational structures that predominantly influence the handling of patients in everyday practice.

Chapter 7 describes everyday care work and shows the relationships between the everyday work and the institutional texts. This chapter focuses on how caregivers obtain the knowledge necessary for handling their patients, how encountering unique individuals impacts the caregivers' work, how caregivers make the decision how and when to handle patients and what this patient handling then looks like. It explains the possible outcomes of any patient handling, including the process followed and institutional texts influencing the occurrence of adverse events. Finally, this chapter discusses how caregivers document their care and its purpose within the institution.

Chapter 8, the concluding chapter discusses the key findings of this study and its implications for nursing. It is in this chapter that recommendations are made for future policy, education and research in the area of patient handling.

CHAPTER 2

An Historical Overview and Background of Patient Handling

Literature Review

The handling of patients such as lifting and transferring is an important part of the everyday work of nurses. It is also a practice that exposes caregivers to a high risk of injury. These injuries can impact the caregiver physically, emotionally and financially (Charney, 2004). Also, the employers are affected by this by having to pay workers compensation and having to replace caregivers when injured. This chapter will give the reader an historica; background of patient handling-related caregiver injuries and discuss what is currently being done to combat this problem.

Due to the complexity of the topic, this review is presented in three sections. The first section addresses contextual factors relevant to MSIs incurred by nurses. These include the extent and historical background, the causes, the manifestation, the personal effects, the measurement and the reporting of MSIs. The second section offers an overview of the six areas of MSI research published since the 1970's. These include epidemiologic, task analysis, biomechanical laboratory, educational, intervention and human factor research. The final section presents a critique of the literature and its implications for research, theory and ethics. Describing the critique in a separate section allows for a comprehensible portrayal of the complexity that accompanies this topic. Understanding the problem of MSIs incurred by nursing caregivers requires appreciation for the many variables and issues influencing the occurrence of injuries.

This review will:

1. Present a comprehensive review of contextual factors and research literature relevant to MSIs incurred by nurses and other paid caregivers.
2. Critique factors that lead to risk exposure and identify disparities in the current state of knowledge.
3. Provide insight into nurse injury reporting and explore possible explanations regarding injury trends.

The Search Strategy

A search was conducted in a variety of research publications, editorials and commentaries using the Medline, CINAHL, Pubmed, Medline and Google Scholar databases. Keywords used in the searches included: back injuries, MSIs, occupational injuries, nursing, nurses, nursing assistants, healthcare providers, caregivers, hospitals, nursing homes, long-term care, patient handling, safe patient handling and back pain.

This search yielded 2,150 results. After removing duplicate articles and manually excluding articles, the list was condensed to 628. Articles were excluded if they did not pertain to healthcare-related MSIs or discussed MSIs in patients rather than nurses. The indexes of key journals relating to occupational health issues and ergonomics were reviewed for additional titles. To ensure accuracy and completeness of the literature search, a search by an academic librarian was requested, which did not lead to any significant new articles.

Four experts on MSIs in nursing were consulted regarding key studies in the area of MSIs incurred by nurses. The references in pertinent articles were reviewed for additional articles. Databases of federal agencies, such as the Department of Labor (DOL), National Institute for Occupational Health and Safety (NIOSH), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and Occupational Safety and Health Administration (OSHA) were reviewed for data (such as injury data). Finally, the conference manuals of the 2005 and 2006 Annual Conferences for Safe Patient Handling were reviewed.

Contextual Factors Pertaining to Musculoskeletal Injuries in Nurses

Extent and Background of Injuries

Incidence and prevalence of musculoskeletal injuries.

MSIs incurred by nurses constitute an important problem in healthcare delivery systems and are the most prominent form of injury sustained by nurses and other paid caregivers (Nelson, 2006). Nursing is rated as the second-highest physically intense profession compared to other professions in the United States (Nelson & Waters, 2006). MSIs manifest themselves mainly in the form of back injuries or back pain (Charney & Hudson, 2004; Edlich, 2005). In 2005, nurses reported 12.6 injuries per 100 full-time equivalents (FTE's) (Bureau of Labor Statistics, 2005). Healthcare has one of the highest incidence rates of injuries in the United States (Jensen, 1987; Garg & Owen, 1992); nurses and other paid caregivers have more claims per 100 workers than either material handlers or construction workers (Klein, Jensen, & Sanderson, 1984).

Financial Consequences

The financial consequences of MSIs to healthcare facilities are burdensome. (Bruck, 1994; Edlich, 2005b; Siddharthan, Nelson, & Weisenborn, 2005a). The costs include direct expenses such as medical treatment and indirect costs such as additional expenses for replacement workers (Liberty Mutual, 2004). These costs associated with MSIs are likely to increase sharply, in tandem with the skyrocketing cost of healthcare (Fuchs, 2005). The most recent estimate of the cost of work-related MSIs dates back to 2003 and was estimated at $13.2 billion. Although only 16-19% of worker compensation claims are related to back pain, these account for 33-41% of claim payments (Marras, 2005). In 2002, 26.6% of all work-related injury claims in the United States were attributed to overexertion. Currently, the cost of worker compensation insurance for healthcare facilities exceeds the cost of malpractice insurance (Marras, 2005).

Effects on the Nursing Workforce

MSIs incurred by nurses contribute to workforce shortages in healthcare. In 2005, there was a shortage of 100,000 nurses in long-term care facilities (National Commission on Nursing Workforce for Long-term Care, 2005). This shortage extends to acute-care hospitals and is expected to continue to increase in the coming years (Buerhaus, Staiger, & Auerbach, 2004; Goodin, 2003). As nursing shortages have increased, preventing unnecessary loss of nurses has become an important goal for administrators in hospitals and long-term care facilities (Dickerson, 2004; Edlich, et al., 2005a; Hudson, 2005; Smith, 2004). Frequently, nurses are not replaced immediately, thus exposing non-

injured nurses to higher workloads, increased psychological distress and burnout (Bourbonnais, Comeau, Vezina, & Dion, 1998). Inadequate staffing levels have negative effects on patients, such as drug administration errors, decreased patient supervision, errors in ventilator set-up, and accidental extubation (Beckmann, Baldwin, Durie, Morrison, & Shaw, 1998; Bourbonnais et. al.., 1998). Patient dissatisfaction and legal action often result when physical injury or errors occur to patients (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002).

The Manifestation of Musculoskeletal Injuries

More than 75% of reported MSIs manifest themselves as back pain or back injuries (Dehlin, Hedenrud, & Horal, 1976; Moens, Dohogn, Jacques, & Van Helshoecht 1993). MSIs are also manifested as injuries to the upper extremities and neck, as well as cumulative trauma disorders (Siddharthan, Hodgson, Rosenberg, & Haiduven 2006). Diagnoses associated with back-related MSIs include lumbago (Cust, Pearson, & Mair, 1972; Dehlin, Hedenrud, & Horal, 1976), sacro-iliac strain (Cust et al., 1972), sciatica (Cust et al., 1972; Dehlin et al., 1976), prolapsed inter-vertebral discs (Cust et al., 1972) and, most frequently, L5/S1 spinal injuries (Harber et al., 1989). Most MSIs are reported as a result of a sudden onset of severe pain (Moens et al., 1993). Frequently, the level of pain does not directly correlate with the level of diagnosable physical injury. (Harber, Billet, Vojteck, Rosenthal, Shimozaki, & Horan 1983). Often, at the time that a nurse reports back pain, no evident cause for that pain can be established (Stubbs et al., 1983).

Nurses who have sustained a visible MSI rarely fully recover (Turnbull, Dornan, Fletcher, & Wilson, 1992). Sixty to 75% of all nurses experience some form of back pain, the majority report chronic pain (de Castro, 2004; Turnbull et al., 1992). Surprisingly, most nurses who have back pain do not report it as an occupational injury (Turnbull et al., 1992).

Causes for MSIs Incurred by Nurses and Other Paid Caregivers

Several attempts have been made to explain how nurses and other paid caregivers incur MSIs (Charney, 2004, Nelson, 2006, Nelson et al 2004); however, the cause remains unclear. Articles that are referenced to explain why nurses and other paid caregivers incur MSIs describe several MSI-related issues, but leave the question why nurses get injured unanswered. Several studies included stress measurements on the musculoskeletal system while performing certain tasks (Marras, 1999; Owen & Garg, 1991, Garg and Owen, 1992, Hui ,Ng, Yeung, Hui-Chan, 2001), thus, implying that high-stress tasks are synonymous with high-risk tasks. Others studies used tools that correlated reported pain with tasks that were frequently performed (Smedley et al., 1995, Bell, M et al., 1979). Even though correlations are made between back pain and the frequency of performing certain tasks, it remains unclear how these relate to actual injury reports. None of the studies have looked at the unexpected events that occur when handling patients.

Although these studies indicate relationships exist between the frequency in which certain tasks are preformed and back pain, and that certain tasks cause high levels of

musculoskeletal stress, they don't answer the question of the actual causes of MSIs. Neither do the studies specify whether injuries are incurred differently by nurses compared to other paid caregivers such as nursing assistants with less training and professional judgment.

The Personal Effects of Musculoskeletal Injuries on Nurses

MSIs frequently result in lifelong pain and disability (Charney & Hudson, 2004; Schultz, Crook, Berkowitz, Milner, & Meloche, 2005), consequently, many injured nurses never return to direct patient care (Cooper, Tate, & Yassi, 1998). In addition to pain, the effects of MSIs can lead to numerous other problems (Charney & Hudson, 2004) including stress, blame, negative peer responses and personality changes (Mitchelmore, 1996).

Distress about a damaged career is a common experience in nurses who have incurred an MSI (Mitchelmore, 1996). The uncertainty of returning back to the nurse's original position or the effect an MSI will have on career plans creates stress (Charney & Hudson, 2004). Nurses who have incurred MSIs frequently blame themselves for the injury. Many nurses believe that they might have been able to prevent the injury if correct body mechanics had been used, even if their injury may not have been due to improper mechanics (Mitchelmore, 1996; Siddharthan, Hodgson, Rosenberg & Haiduven, 2006).

Nursing colleagues can respond negatively toward their peers with an MSI, creating the atmosphere that the injured nurse isn't "pulling his/her weight", thus increasing stress on the side of the injured nurse. This peer pressure has been shown to accentuate the

problem of underreporting injuries by nurses and other paid care providers (Mitchelmore, 1996; Siddharthan et al., 2006). Injured nurses also experience negative effects in regard to their professional careers. Positions held in the past are no longer an option and obtaining less physically demanding positions can pose a challenge (Mitchelmore, 1996; Charney & Hudson, 2004). Sometimes the MSI leads to involuntary loss of employment (Mitchelmore, 1996; Charney & Hudson, 2004). Some injured nurses experience changes in their personality as a result of chronic pain (Mitchelmore, 1996). This can put pressure on relationships with others (Dembe, 2001; Mitchelmore, 1996; Charney & Hudson, 2004). Finally, most injured nurses experience financial losses related to medical expenses and inability to work (Mitchelmore, 1996; Charney & Hudson, 2004).

Measuring Musculoskeletal Injuries

MSIs are typically measured in one of two ways. The first method uses injury statistics based on databases of injuries, paid compensation or number of days a nurse is on reduced work duty. The second method uses a measurement tool, such as a questionnaire, to determine the level of perceived musculoskeletal discomfort or stress that a nurse experiences. These tools are generally used in a defined work setting for a limited amount of time as part of a research study.

Injury Statistics

Several injury statistics can be used to measure the occurrence of MSIs acquired by nurses and other paid caregivers (Menzel, 2004). The most common injury statistics used are prevalence rates and incidence rates. The prevalence rate is the proportion of nurses

who have reported an MSI at a specific point in time, to the total nursing population (Hennekens, Buring, & Mayrent, 1987). An incidence rate refers to the number of newly reported MSIs, within the nursing population, during a specified timeframe (Hennekens et al., 1987).

The incidence and prevalence rates used to describe the statewide or national severity of the problem of MSIs are predominantly obtained from OSHA databases. Studies measuring the affect of a specific intervention typically use data from the institution where the study was performed. OSHA uses a national sample of injury and illness logs to calculate incidence rates (Menzel, 2004). Both incidence rates and prevalence rates reported by OSHA only include occupational injuries. Because MSIs are frequently a result of cumulative trauma, determining what part is work-related is extremely challenging (Siddharthan et al., 2006). Nurses who do not report MSIs caused by cumulative trauma as occupational injuries are not included in the data reported by OSHA (Siddharthan et al., 2006).

Two other methods used to measure the impact of MSIs are the number of lost workdays and the amounts paid in worker compensation claims. The number of workdays lost is based on filed worker compensation claims. OSHA records are generally used for statewide or national data; institutional records are used when site-based data are reported (Charney, 1997; Hignett, 1996; Marras, 2005; Nelson, Fragala, & Menzel, 2003; Nelson, 2006). Insurance companies are usually the source of data that describe the amount paid in compensation claims.

The cost of MSIs to the healthcare organization is another measure by which the magnitude of the problem can be expressed (Hospital Employee Health, 1993; Brophy, Achimore, & MooreDawson, 2001; Chhokar et al., 2005; Cohen-Mansfield, Culpepper, & Carter, 1996; Hignett, Wilson, & Morris, 2005; Li, Wolf, & Evanoff, 2004; Linton, 2000; Siddharthan, Nelson, & Weisenborn, 2005b; Votel & Sitzman, 2001). Increased worker compensation costs and costs of hiring and training replacement workers are two amounts that are typically included when calculating injury costs for healthcare institutions (OSHA, 2006). However, no uniform method exists for how organizations calculate costs associated with MSIs. Not surprisingly, the amounts mentioned in the literature consistently lack an explanation of how the data was derived, thus, making it hard to compare differences between institutions.

Lastly, restricted duty assignments, sometimes referred to as "light duty," is another measure used to express the extent of MSIs incurred by nurses. Restricted duty typically implies that a nurse has lifting restrictions and does not work in her normal capacity as a direct care nurse. Hospitals and care facilities who have a nurse or other paid care provider performing restricted work duties or who transfers to another job due to an occupational injury, must report this to OSHA (Menzel, 2004; OSHA 1996b; OSHA, 2001).

In summary, there are many ways in which the magnitude of MSIs can be measured, including prevalence rates, incidence rates, worker compensation claims and workdays lost. Yet, these rely heavily on staff self-reporting of their injuries. Many measurement

tools exist that can track the level of exposure to certain risks such as chemicals or radiation (Larsen, 2000) in workers. However, no measurement tool is used in the area of musculoskeletal strains or injuries that is not dependent on self–reporting.

Measurement Tools

Numerous MSI measurement tools are available. Most of these tools were developed for epidemiological studies focused on MSIs. The measurement tools are typically questionnaires or surveys in which the nurse or other paid caregiver self-reported her perceived level of musculoskeletal stress or discomfort. The most common tool used to measure musculoskeletal pain or injury is the Nordic Musculoskeletal Questionnaire (NMQ), referred to as the standard for measuring MSIs (Moens et al., 1993). The NMQ asks questions about injury or pain in nine different areas of the body (three on upper limbs, three on lower limbs and three on the torso). Additionally, it contains questions pertaining to the level of risk exposure for MSIs based on the responders' perceived stress (Kuorinka et al., 1987). The NMQ is used internationally to measure MSIs in nurses. In past studies, using the NMQ to measure MSIs in nurses, the United States had the lowest scores (47%) and Greece the highest (75%) (Menzel, 2004). These findings indicate that cultural differences may impact NMQ scores. If this is true, this should be taken into consideration when comparing scores between countries or cultures.

Other tools mentioned in the literature are the General Health Questionnaire, (Estryn-Behar, et al., 1990; Klaber Moffett, Hughes, & Griffiths, 1993) the Borg Rating

of Perceived Exertion Scale, (Gonge, Jensen, & Bonde, 2002) and Leavers' Questionnaire (Stubbs, et al., 1983). These, however, are only occasionally used in MSI research.

Injury Reporting

An injured nurse can report work-related injuries to her employer, but is not legally required to do so. By not reporting an injury, the nurse forfeits her rights to receive compensation. The compensation can include medical treatment (without using personal insurance), worker compensation and the ability to return to work on light duty.

Employers with more than 10 employees are required to record and maintain records of all reported injuries that occur within their organization (OSHA, 2001). Mandated reporting of injuries to OSHA occurs when a nurse with a work-related MSI has lost workdays, needs more than one medical treatment, is placed on light duty or dies as a result of the injury (OSHA, 1996a).

The determination if a reported injury is considered work-related or not is made by the occupational health physician hired by the employer. Because of the cumulative nature of MSIs, it is often impossible to determine if an injury is work-related or not (Charney & Hudson, 2004). No nationwide statistics are available for the number of MSIs that are reported by an employee, but which are not classified as work-related.

Most states require all physicians to report occupational illnesses such as respiratory conditions and work-related cancer to OSHA. However, physicians are not required to report occupational injuries encountered (Rosenman, et al., 2000). Thus, MSIs are only

reported to OSHA by an employer when an injury is reported that resulted in lost or restricted workdays, more than one medical treatment, or death.

Nurses and other paid care-givers have elevated levels of reporting MSI reporting compared to other industries. In contrast, they call in sick about 40% less than workers in other industries (Pheasant & Stubbs, 1992), indicating that over-reporting is not the most likely explanation for these increased injury numbers. On the contrary, evidence suggests it is more likely that MSIs are under-reported.

A recent study indicates that underreporting of MSIs by nurses and other paid care providers occurs frequently (Siddharthan, et al., 2006). Other studies on MSIs have shown that less than a quarter of workers who experience neck or back pain report their injury as work-related (Rosenman, et al., 2000; Siddharthan, et al., 2006). Nurses have different reasons for not reporting injuries; some nurses fear employer repercussion (de Castro, 2004), others experience structural obstacles to reporting, for example with agency nurses (de Castro, 2004). Sometimes nurses don't perceive reporting of a "minor" injury as "worth the effort" because waiting periods are in effect before benefits kick-in. Finally, many injuries go unreported because nurses may question whether their injury is truly work-related, especially MSIs that are a result of cumulative trauma (Siddharthan, et al., 2006).

In conclusion, the cumulative nature of MSIs makes it challenging for both employers and employees to determine if reporting is appropriate. Injury statistics are based on reported injuries that are validated by occupational health physicians. Because

MSIs appear to be under-reported, the current number of known, work-related MSIs may reflect only the "tip of the iceberg" (Siddharthan, et al., 2006).

In summary, MSIs in nurses and other paid caregivers is common in healthcare, which has some of the highest injury rates. The exact reason why nurses and other paid care givers get injured is unclear. These injuries come both at a cost for healthcare institutions and the injured nurse. For healthcare institutions, MSIs have both financial and workforce consequences whereas in injured care providers, the impact of MSIs can be physical, social, mental, and/or financial. MSI statistics are maintained by OSHA and the DOL and is based on self-reporting. Numerous tools are available to measure musculoskeletal discomfort and pain, yet these are not used as sources for injury statistics. Research indicates MSIs are underreported, in part because of the cumulative nature of many injuries.

Research Literature Discussing MSIs in Nurses and Other Paid Care Providers

Until the late 1970's research did not focus on MSIs incurred by nurses and other paid caregivers. This section discusses the six areas in which MSI research has been performed since the 1970's. These areas include epidemiologic, task analysis, biomechanical laboratory, educational, intervention and human factor research focused on MSIs. The literature does not differentiate how MSIs are incurred by RN's compared to other paid caregivers. The following section will describe how studies assessing paid caregivers such as nursing assistants were used as the foundation for interventions for

RN's. The interchangeable use of the terms "RN" and "(paid) caregiver" in this paper reflects their usage in the literature.

Descriptive Epidemiological Studies

The first studies that focused on MSIs in nurses and other paid care providers used descriptive epidemiological research methods. These studies initially focused specifically on back injuries but later broadened their scope to encompass all MSIs. Data were obtained using self-assessment tools (Mandel & Lohman, 1987; Turnbull, et al., 1992) such as the NMQ (Moens, et al., 1993), the General Health Questionnaire (Estryn-Behar, et al., 1990; Klaber Moffett, Hughes, & Griffiths, 1993), the Borg Rating of Perceived Exertion Scale (Gonge, Jensen, & Bonde, 2002) and Leavers' Questionnaire (Stubbs, et al., 1983). However, in many studies no disclosure is made on how data were obtained. (Cust, et al., 1972; Harber, et al., 1987; Mandel & Lohman, 1987; Turnbull, et al., 1992).

Multiple factors that affected or led to MSIs were identified. Most notably, the best predictor for incurring back pain was identified to be a previous history of back pain (Dehlin, et al., 1976; Estryn-Behar, et al., 1990; Harber, et al., 1987; Mandel & Lohman, 1987; Moens, et al., 1993; Turnbull, et al., 1992). Several activities, personal characteristics and lifestyles were also shown to increase the relative odds of incurring an MSI.

The activities that increased the likelihood of incurring an MSI included exercise (Estryn-Behar, et al., 1990; Moens, et al., 1993), the perception of work overload (Moens, et al., 1993), and working with patients that required lifting (Dehlin, et al., 1976; Klaber

Moffett, et al., 1993). The personal characteristics included age (Estryn-Behar, et al., 1990; Moens, et al., 1993), being over or underweight (Cust , et al., 1972; Estryn-Behar, et al., 1990; Moens, et al., 1993) and having a minor psychiatric disorder or other psychological factors (Estryn-Behar, et al., 1990; Klaber Moffett, et al., 1993). The lifestyles which affected the risk of sustaining an MSI included living together with a partner, (Moens, et al., 1993), having children and the number of children (Estryn-Behar, et al., 1990).

Importantly, these studies established a direct relationship between performing nursing work and the risk of incurring an MSI. Some studies found that occupational factors (such as lifting patients) are less important than non-work related factors (Estryn-Behar, et al., 1990; Mandel & Lohman, 1987); however, Moens (1993) determined in her study that working as a nurse was the single most important contributor to musculoskeletal pain, particularly to back pain. In another study, nurses confirmed that back pain is related to the work they perform and that high levels of stress increased the odds of sustaining an MSI (Gonge, et al., 2002).

Descriptive epidemiological studies set the foundation for further research by validating the relationship between the work nurses perform and incidents of MSIs. They also helped identify the areas in need of further research: addressing the causes of musculoskeletal pain (Stubbs, et al., 1983), the reason why interventions implemented to decrease MSIs were successful in most industries with an exception to healthcare (Estryn-Behar, et al., 1990; Stubbs, et al., 1983), the evaluation of equipment (Dehlin, et al.,

1976), and the need to develop measurement tools to quantify MSIs (Klaber Moffett, et al., 1993).

Task Analysis

High prevalence rates of MSIs reported in the epidemiological studies prompted researchers to examine nursing tasks closer and analyze which nursing tasks caused the highest level of musculoskeletal strain (Harber, et al., 1987; Owen & Garg, 1991). A foundational study focusing on musculoskeletal stress was performed in a nursing home in Wisconsin (Garg & Owen, 1992; Owen & Garg, 1991). Owen and Garg (1992) identified tasks that expose nursing assistants to high levels of musculoskeletal strain. Nursing assistants identified 153 stressful patient handling tasks, which formed the basis for the rest of their study. The level of exertion was scored by caregivers on a tool based on self-reporting. Caregivers identified which patient handling tasks caused the highest degree of stress on their musculoskeletal system. The 10 most stressful tasks were video taped and then analyzed. Detailed descriptions of the tasks were developed. The analysis included determining frequency rates, time needed to complete tasks, and environmental factors. The findings from this task analysis study led to the development of new techniques intended to reduce the physical stress on caregivers. These new techniques were based on ergonomic techniques used by non-healthcare workers who have successfully decreased MSIs by implementing mechanical devices to replace manual lifting (Garg & Owen, 1992).

In a later study, nurses and other paid caregivers in a nursing home were observed while performing the 10 most stressful tasks identified in the previous study. One group of caregivers used the newly developed techniques (experimental group), whereas a second group continued to perform tasks in the traditional manner (control group). Stress in caregivers was evaluated by using both perceived stressfulness and using biomechanical measurement tools. These data showed a statistically significant decrease in physical stress levels when the new techniques were implemented (Garg & Owen, 1992; Owen & Garg, 1991). The rating and classification of the high-stress tasks was re-evaluated in several other studies (Garg & Owen, 1992; Marras, Davis, Kirking, & Bertsche, 1999), resulting in a fine-tuning of the rank-ordering of high-stress tasks.

1. Transferring patient from bed to toilet
2. Transferring patient from bed to wheelchair
3. Transferring patient from toilet without arm to bed
4. Transferring patient from commode to hospital chair
5. Transferring patient from toilet with arm to bed
6. Transferring patient from commode to chair

These high-stress tasks form the basis of many other studies and patient handling guidelines. Garg & Owens' (1992) original study focused on high perceived stress-tasks performed by nursing assistants, however, these findings have been used in developing strategies for decreasing injuries in both RN's and other paid caregivers. The studies listed above form the foundation for the only two resource texts available on safe patient

handling, *Patient Care Ergonomics Resource Guide: Safe Patient Handling and Movement* (Veterans Health Administration and Department of Defense, 2001) and *Safe Patient Handling and Movement: A Guide for Nurses and Other Health Care Providers* (Nelson, 2006). Importantly, although these high stress-tasks form the foundation of MSI prevention, the relationship between the high-stress tasks and MSIs is not discussed in the literature.

Biomechanical Laboratory Studies

To determine the exact amount of stress imposed on the musculoskeletal system, biomechanical laboratory studies were performed which measured pressure forces on nurses' musculoskeletal systems while they performed high-stress tasks within a laboratory setting (Owen & Garg, 1991). These studies didn't use actual patients. Sometimes a single actor simulated the role of patient (Marras, et al., 1999; Marras, Davis, & Jorgensen, 2002) and in other studies the recruited subjects alternated their role between that of caregiver and of patient (Owen & Garg, 1991), thus, making it more difficult to extrapolate findings into actual nursing settings.

These studies measured musculoskeletal stress in different ways, by using musculoskeletal pressure measurement devices (Marras, et al., 1999; Marras, et al., 2002; Nelson, 2003), video analysis of high-stress nursing tasks, and/or self-reporting tools recording the caregivers' perception of physical stress. Results were obtained by comparing experimental groups (performing new techniques) to control groups (using traditional techniques). Biomechanical evaluation, time required for the transfer and the

ease of using certain equipment or performing a certain task were used as outcome measures (Marras, et al., 1999; Marras, et al., 2002; Nelson, 2003; Owen & Garg, 1991). The findings in these studies consistently indicated that lifting equipment decreased forces on the lower back in the laboratory setting (Marras, et al., 1999; Marras, et al., 2002).

Evaluating the Impact of Training and Education

Education is the most common and earliest described intervention to prevent MSIs in nurses and other care providers. This education focuses on teaching nurses about correct body mechanics and ergonomics[1]. Even as early as 1892, a text book identified the musculoskeletal stress that nurses can experience: "When a nurse has to raise a limb she will, of course, get as near as she can, not raising a right leg from the left side of the bed, which is very back-aching work…" (Lewis, 1892).

When text books started suggesting techniques to lift patients, the focus was predominantly on the patients' needs. The risks to the nurse, if mentioned at all, was secondary to the patients' needs as demonstrated in an excerpt from a historical nursing text: "To become an expert in lifting and moving sick people requires a great deal of practice, and a beginner should not be left alone to perform this office for the sick" (Harmer, 1922). If nurses got injured, they were to blame for their own injuries: "Occasionally the complaint is made that a nurse has injured her back or strained herself some way in moving a patient. This will generally be because she has failed to do the lifting properly" (Robb, 1916).

Later, nursing text books shifted from being predominantly patient-need focused to incorporating the nurses' wellbeing by emphasizing the importance of maintaining good body posture while working with patients (Perry & Potter, 1994; Sorensen, Luckmann, & Berni, 1979). Guthrie's (1952) *Theory of Habit Breaking to Create Change* was used to support this educational paradigm (Venning, 1988). The theory assumes that a person can change behaviors when made aware of what is wrong and then taught better alternatives (E. R. Guthrie, 1952). The underlying assumption was that injuries are caused by a knowledge deficit. Making nurses more aware of their (ineffective) body mechanics would make them receptive to education in good body posture. Once aware of what to do, nurses would no longer expose themselves to risk of injury.

Recent studies on MSIs and education have shown that the sole use of education is an ineffective method to decrease injuries (Owen, 2000a; Nelson, Fragala, & Menzel, 2003). This finding is not new, a 1979 research analysis, performed by The Cochrane Working Group on Back Pain, reported that there was no scientific evidence suggesting that education reduced back injuries (Harber et al., 1987). As well, nurses perceive that the risk-prevention strategies taught in schools don't prepare them for the actual risks at the bedside because correct body posture and lifting techniques don't cover many other tasks. Tasks such as prolonged standing, lifting and/or holding extremities, holding retractors for extended periods of time, reaching, lifting and moving heavy equipment can be stressful regardless of what posture or body mechanics are used (Owen, 2000a).

In 2005, the American Nurses Association (ANA), in collaboration with NIOSH, the Veterans Administration (VA) and six equipment companies initiated a study in nursing schools across the United States to promote a new paradigm of education. Nurses are taught to avoid manual lifting by assessing equipment needs and using the equipment in a standardized manner with the goal to decrease MSIs (ANA, 2006). The content is based on algorithms developed by the VA, discussed in the next section.

Recently, the first textbook focused on safe patient handling was published, *Safe Patient Handling and Movement: a Guide for Nurses and Other Health Care Providers* (Nelson, 2006). This is the first book to offer nurses and other caregivers alternatives to manual handling for a variety of tasks and the means to determine what equipment should be used. This book focuses on the high-stress tasks identified by Owen and Garg (1991) and the workflow algorithms developed by the VA (Nelson, 2006).

Research of Specific Interventions

Besides education, several other interventions are proposed to decrease MSIs in nurses: using equipment, utilizing lift teams, creating standard work, and implementing institutional policy and legislation. These solutions are described in the literature as stand alone solutions. Some of these interventions are described in only a single or few studies. They are discussed more fully because of their important contribution to the body of knowledge pertaining to MSIs.

Equipment

Research on the utilization of equipment has been published for biomechanical laboratory studies and clinical studies. Different research designs have been used to examine the relationship between the use of equipment and the reporting of MSIs. The number of reported injuries are compared either between an experimental group (using lifting equipment) and a control group (who performed lifts manually), or between pre- and post intervention data in the same population (Chhokar, et al., 2005; Guthrie, et al., 2004). The studies confirmed that the utilization of lifting equipment decreased the number of injury reports by nurses and other caregivers (Chokar, et al., 2005; Guthrie, et al., 2004).

Some studies have looked at patients' perceived safety and comfort of equipment, but none have looked at the actual safety and security of the equipment for patients. The 2002 annual report of the Dutch National Health Department proclaimed that patient transfers using equipment are high-risk tasks. They came to this conclusion after the department had received six severe injury and death reports within a short amount of time (Ministerie van Volksgezondheid, 2003). In the United States, the FDA is responsible for evaluating equipment safety used on patients. Surprisingly, the FDA does not require patient lifting equipment to be evaluated for safety nor mandate reporting of issues with equipment (FDA 2006). The FDA does, however, allow for voluntary reporting of equipment failures that result in patient injuries or death. From January 2005 through April 2006, 198 severe events, including five deaths, have been reported voluntarily (U.S.

Food and Drug Administration, 2006). A situation resulting in patient death was reported as follows: "The resident was bathed and removed from the tub using the lift. The resident and lift were parked without the brakes engaged . . . The caregiver turned . . . when the caregiver turned around, the resident was face down on the floor, attached to the lift. The caregiver did not see the lift and resident fall over . . . The resident incurred bruises on both knees, fractures of one femur, and a head injury (bruising) . . . The resident passed away the next day" (FDA. 2006). The FDA reports show different views of the cause of the injuries. Caregivers cite technical problems with equipment, while the equipment manufacturers consistently attribute the cause to inappropriate usage and lack of staff education (U.S. Food and Drug Administration, 2006). Regardless of cause, no literature has been published on lifting equipment and patient safety.

Lift-Teams

Lift-teams (typically made up of two non-professional caregivers), are specifically trained to move, reposition and transfer patients (Charney, Zimmerman, & Walara, 1991). According to Charney (1991), the key benefit of a lift-team is that they minimize many risk factors for MSIs such as uncoordinated lifts, height/weight differentials between caregivers, lifting when fatigued or recovering from an MSI, lifting manually, and utilizing under-trained or un-trained caregivers.

When a patient needs to be moved, a nurse or caregiver will call the lift-team who arrives within a designated amount of time to perform the patient transfer (Charney, et al., 1991). Most lift-teams operate for a limited number of hours a day, the timeframe

generally covering the hours with the highest volume of anticipated patient transfers (Meittunen, de Ruiter, & McCormack, 2000).

Studies have consistently shown that the lift-team model, developed in the 1990's, leads to decreased injury reporting and decreased number of workdays lost resulting from work-related MSIs (Meittunen, et al., 2000; Charney, Zimmerman, & Walara, 1991). Unfortunately, it is unclear how lift-team studies evaluate their successes. Only one out of nine studies disclosed what tool they used to measure their outcomes (Charney, et al., 1991, Charney, 1992, Charney, 1997, Caska, Patnode, & Clickner, 1998, Meittunen, Matzke, McCormack & Sobczak, 1999, Caska, Patnode, & Clickner, 2000, Charney, 2000, Donaldson, 2000, Davis, 2001, Haiduven, 2003).

Workflow Algorithms

Workflow algorithms were developed to help nurses determine what equipment, along with how many people, are needed to handle a patient. The algorithms are based on the high-stress tasks identified by Owen and Garg (1991) and have been expanded to include high-stress tasks identified more recently (Nelson, et al., 2003). The elimination of manual handling is an underlying principle on which the algorithms were developed. The nurse or caregiver starts by assessing a patient, taking into consideration such factors as patient confusion, ability to assist and body mass index (BMI). By following the research-based steps on the algorithm, a nurse obtains a "best-practice recommendation". In addition to offering a best-practice recommendation, algorithms promote a standardized approach to patient handling. Although many of the steps making up the

algorithms are based on research, the benefits of using the algorithms have not been researched (Chokar, et al., 2005; Guthrie, et al., 2004, Nelson & Baptiste, 2004). However, it is important to note several states are currently proposing legislation to require the use of algorithms that limit manual lifting to decrease MSIs (Nelson & Waters, 2006).

Use of Institutional Policy

Garg (1999) performed a five year follow-up study in seven nursing homes and one hospital to validate the findings in the study he performed with Owen 10 years earlier. The interventions used in this study included the implementation of patient transfer equipment, education of staff on equipment utilization, and implementation of a zero-lift policy. Based on reported staff injuries, patient transfer injuries decreased 62%, lost workdays decreased 86%, restricted workdays decreased 64% and worker compensation costs decreased 84 % (Garg, 1999).

Decreasing the number of injury reports was the central goal of this study, thus the implementation of a zero-lift policy was a key element of this intervention. Garg (1999) found that decreasing injury reports only occurred if policies were implemented and reinforced by management. The development of a disciplinary procedure (including suspension and termination of employment) for nurses and other caregivers not following the no-lift policy is promoted as a best practice intervention to achieve decreased injury reporting (Garg, 2006). Several other studies have looked at the results of adopting a no-lift policy, and support its implementation (Nelson 2006, Collins et al 2004).

Use of Legislation

Legislation to decrease MSIs was first implemented in the United Kingdom (UK) (Aziz, 1992). In 1992, UK legislators passed a regulation mandating employers to provide all employees alternatives to manual lifting if commercially available. This legislation applies to all industries including healthcare. Nurses, however, can make an exception when no alternatives to manual lifting are available or when a patient's life is in danger (Love, 1993). Importantly, the implementation of the UK manual handling regulation has not led to noteworthy injury reductions in healthcare (Love, 1993; Love, 1995). Reasons given for lack of decrease in MSIs included nurses not using available equipment, being unfamiliar with the regulation, and finally, unpredictable patient actions causing injuries (Love, 1993; Love, 1995).

Legislation to eliminate manual lifting is also being promoted in the United States and has passed in some states (Edlich, et. al, 2005). The advocates for this legislation propose that laws should include mandating hospitals to create a safe patient handling program, to purchase patient handling equipment, to require staff to use equipment and to prohibit manual lifting except in life threatening situations (Edlich, et al., 2005). Texas was the first state to pass a "No-Lift Law" (SB 1512) which became effective January 1st, 2006 (Hudson, 2005). Washington was the second state to pass similar legislation on March 8th, 2006. Both laws require hospitals to develop a structure that addresses patient handling issues in order to prevent unnecessary injuries. The goal is to eliminate manual lifting by nurses by requiring hospitals to purchase equipment and educate staff on usage.

Hospitals will be required to develop patient handling policies. Hospitals will also be monitored based on injury reports to state agencies on an ongoing basis. Institutions are required to develop a process in which nurses can refuse manual lifts which will expose them to MSIs (State of Texas, 2005 and State of Washington, 2006).

Multifaceted Ergonomic Program Research

Multifaceted ergonomic program research assesses the benefit of simultaneous implementation of patient lifting equipment, education of staff on equipment utilization and implementation of a "no lift" policy (J. W. Collins, Wolf, Bell, & Evanoff, 2004). This approach was introduced by Garg (1999) and replicated by Nelson (2003) and Collins (2004). These studies that implement a no-lift policy in conjunction with purchasing equipment and offering education were effective in decreasing injury reports in long-term care and acute-care settings. If only equipment and education were introduced, the impact on injury reports was much less significant. The implementation of multifaceted programs resulted in decreased numbers of reported MSIs. The decreased reporting held true for all caregivers regardless of employment status (full-time or part-time), age or length of experience. (Collins, et al., 2004).

Human Factors

The final area of research covering MSIs incurred by nurses and other paid caregivers looks at human factors. Human factors are the variables that influence how humans interact with technology and their work environment (NASA, 1996). For nurses, the environment includes the work with patients and families in addition to the actual

space. The literature describes many human factors influencing the occurrence of MSIs, however, only two research studies have been published on this topic. The categories identified in these studies include organizational, patient-related, and worker-related factors.

Hignett (1995 & 2003) published both studies, in which human factors surrounding patient handling are described. In the initial study, Hignett interviewed 26 nurses exploring why nurses would not use equipment and thus expose themselves to the risk of MSIs (Hignett & Richardson, 1995). Organizational factors focused on management, and in particular support, responsiveness and hiring practices. Risk for injury increased when managers ignored safety issues that are brought to them. Other organizational factors, such as lack of equipment, forced nurses to lift manually even though the use of equipment was preferred (Hignett & Richardson, 1995). Nurses identified patient-related factors such as emotional, mental or physical issues in how patients influenced their decision on how to handle a patient. Other patient-related factors included concerns for patient dignity and responding to the demands of patients and families (Hignett & Richardson, 1995). Nurses reported knowingly exposing themselves to greater risk of an MSI, for example, when a patient demanded immediate attention. Worker-related factors included nurses' beliefs about what constituted professional and quality care, including personal values such as dignity, privacy and safety. Other factors included knowledge, experience and education levels regarding patient handling. Finally, fatigue and stress are

additional worker-related factors that affect how nurses handle a patient (Hignett & Richardson, 1995).

In her second study, Hignett (2003) focused specifically on organizational culture and how this impacts patient handling. This study examined the views of 21 academics and practitioners familiar with ergonomics. Organizational factors included the size of the hospital, the complexity of the organizational structure and how change is implemented (for example, "top down"). Patient-related factors included the perception that nursing is dirty and emotional work, for example, a patient covered with body fluids or agitated will be handled differently. A worker-related factor identified in this study was the nurses' realization that nursing errors can impact patients thus influencing the way he/she might handle a patient (Hignett, 2003).

Editorials, anecdotal and other non-research based articles also present numerous human factors that increase nurses' exposure to MSIs. Organizational factors included variables such as managers not listening to nurses' safety concerns (To lift or to leave?, 1998) and the attitudes of senior colleagues not supporting the use of equipment (K. Siddharthan, et al., 2006; Love, 1996). Organizational factors, such as equipment not being available, too time-consuming to use (Schuldenfrei, 1998) and having insufficient work space to use equipment effectively (Hignett, 2003; Love, 1996) were perceived as increasing exposure to MSIs. Nurses' perception of increased exposure to MSIs also included patients-related factors such as patients acting in an unpredictable manner (Love, 1996; Nelson & Waters, 2006) and patients requesting nurses not to use equipment (To

lift or to leave? 1998). Finally, worker-related issues included increased risk exposure during the busy hours of the work day (Love, 1996) and when nurses are overworked or fatigued (Pheasant & Stubbs, 1992).

The Analysis and Critique of the Literature and State of Science

MSIs are a documented problem for nurses and other paid caregivers. The level of musculoskeletal stress can be measured by self-assessment tools or mechanical stress measurement devices. These tools were used to develop a list of the high-stress tasks. After ranking the tasks in order of stressfulness, new techniques were developed to decrease musculoskeletal stress levels. These techniques are based on ergonomic principles and focus on eliminating manual lifts. Implementation strategies include work-flow algorithms which guide nurses in identifying equipment that should be used and the number of staff needed to complete the patient handling task, and include the implementation of lift-teams that perform all patient lifts and transfers using standardized techniques that eliminate manual lifting. Educating staff on correct body mechanics has traditionally been the main intervention in decreasing injuries; however, it has been ineffective. Thus, the focus of education has moved from body mechanics to equipment utilization. The largest decrease of injury reports occurs when a multifaceted program that includes a zero-lift policy in conjunction with access to equipment and education on equipment is implemented.

The number of MSIs is measured by tracking the number of occurrences, amount of work-time lost, amount paid in worker compensation claims and number of days a nurse

is on restricted work duty. Nurses voluntarily report injuries to their employers, but employers are mandated to report injuries to OSHA. Recent studies indicate that underreporting of MSIs in nursing is prevalent. Although other MSI tools are available, they are not intended for injury tracking. In recent years, the OSHA data on reported MSIs have not decreased appreciably, in contrast to the strong declines in injury reports at facilities where multifaceted programs are implemented.

Some evidence indicates that human factors play a role in why nurses don't use lifting equipment. These include organizational, patient-related, and worker-related factors. If and how these factors relate to the current approach of implementing no-lift policies is, however, unclear.

Implications from the Literature for Theory

The state of the science on MSIs incurred by nurses and other caregivers is based on six implied theories. This section will describe how these implied theories have their limitations.

The Highest Stress Tasks Actually Cause the Highest Number of Injuries.

Research demonstrates that certain patient care tasks expose nurses and other caregivers to greater levels of musculoskeletal stress. However, it has not been demonstrated that these tasks are the actual tasks that are causing injuries. The listing of high-stress tasks was developed based on nursing assistants' perceptions of high-stress patient interventions. Of the 158 tasks listed, the summarized version of the 10 highest-ranked stress tasks may minimize much of the complexities involved in nursing

interventions. As well, if a caregiver is aware of what the high-stress tasks are, does that change one's approach? If a direct correlation does not exist between high stress tasks and high injury tasks, this could devaluate the safe patient handling models that have been built on this knowledge.

Nurses can change, but will only do so if forced to.

The implementation of no-lift policies requiring nurses and other caregivers to use lifting equipment has great implications. This requirement can be interpreted in two ways: 1. That nurses and caregivers do not have the ability to make sound judgements about their personal safety, thus need to be protected from themselves, or 2. The reasons that nurses give for not following recommended practices are not considered valid, thus diminishing the nurses' perspective of what constitutes best care. Both of these reasons can be considered paternalistic in nature and diminish nurses' ability to make professional judgments.

Individual pieces of evidence in an algorithm make the algorithm evidence-based.

The algorithms for patient handling were developed using evidence that was available. For example, if the algorithm recommends the use of a ceiling lift, evidence is available that a ceiling lift will decrease the amount of stress put on a nurse compared to manual lifting. For many other recommended interventions, such as "stand-by for safety as needed" when repositioning a geriatric patient who can fully assist him/herself, no evidence or research is available. The algorithms were evaluated by a panel of national experts, yet that is typically not considered evidence. Although the algorithms were

tested within the VA system, several other interventions such as implementing a no-lift policy were implemented simultaneously, thus making it hard to determine to what extent the algorithms contributed to the decreased injuries. Also, in general, a single study does not constitute evidence. If the algorithm model is being promoted as being evidence-based, generally accepted criteria for what constitutes evidence, for example Cochrane or Johanna Briggs, should be followed. By not doing so, the current definition of what is considered evidence will be changed.

Reported injuries are synonymous to actual injuries that have occurred.

Most studies measuring the effects of their interventions base their findings on lost days of work, worker compensation, days on light duty and number of injuries. All of these rely on voluntary reporting. No literature has demonstrated whether the decrease in reported injuries is due to an actual decrease of injuries or if injuries are being underreported. This is especially important to note since decreases in reporting occurred only after no-lift policies were implemented. The stark decrease in MSI rates reported in the multifaceted programs is peculiar because evidence indicates that most MSIs are caused by cumulative injury incurred over years. It is unlikely that injuries related to cumulative injury would have shown such a sudden decrease. The benefits of decreased injuries caused by cumulative trauma would be expected to drop only after years, as caregivers were no longer exposed to stress from the time they enter the work force.

Assuming that reported injuries are synonymous to actual injuries could lead to wrong interventions. Interventions that are focused on decreasing injuries could be

successful in decreasing injury reports by making reporting unattractive, yet, by doing so, there is no guarantee that the actual number of injuries will decrease.

Patient handling is no different than handling inanimate objects.

Little is known how working with humans versus inanimate objects influences decisions on how handling occurs, as research evaluating the use of lifting equipment was based on predictable tasks. This is especially true for interventions tested in the laboratory setting. Little is known how handling patients plays out in the diverse patient care situations encountered in the practice arena. For example, if a patient is extremely fearful of being lifted with equipment, does that fear impact how the nurse decides to lift a patient? Does confusion or combativeness effect how a patient is transferred? Knowing the answers to such questions might be crucial to explaining why nurses and other paid caregivers continue to get injured.

A standardized, best practice approach can form a good basis for deciding how a patient is handled. However, it is essential to take into consideration that nurses and other paid caregivers are working with vulnerable individuals with carrying needes. Each patient and patient intervention is unique, requiring adaptability and professional judgment.

Equipment usage only has benefits and is safe.

Although there are many evident benefits from using equipment, there are also some negative consequences to equipment utilization, such as patient injuries. Even deaths have occurred from the use of transfer equipment. The belief that equipment is safe is

further implied by the FDA classifying lifting equipment as low-risk and not requiring any evaluation prior to implementing it in patient care settings. In addition, no data is available regarding whether equipment (especially moving equipment into proper position) has caused any MSIs. By not being aware of the potential dangers of using transfer equipment, appropriate education, staff level, and use cannot be determined. The ability to make sound judgments about adequate training levels needed and appropriate equipment utilization requires accurate information about equipments' safety.

Implications from the Literature for Ethical Practice

Patient-related ethical issues.

The literature describes MSIs and patient handling predominantly from the caregiver's perspective. This raises ethical issues regarding the safety and concern of the patient. The patient is exposed to an unknown risk when the utilization of equipment is required which has not been fully tested. The extent to which equipment has harmed or caused death to patients is unknown. As well, a patient who may, in a nurses' professional judgment, be moved more safely and efficiently with a manual lift, may have a more uncomfortable transfer technique imposed upon him/her. Knowingly inflicting avoidable discomfort violates the patient's human rights.

Nurse-related ethical issues.

Mandating nurses to adhere to no-lift policies eliminates the nurse's the ability to use professional judgment when she considers lifting manually to be appropriate in non-life threatening situations. Requiring a nurse to perform a task which she feels is not in

the best interest of her patient can create a moral dilemma for the nurse. For instance, if a nurse is aware that a patient experiences extreme levels of pain or anxiety by using equipment, requiring the nurse to use the equipment when she would be knowingly inflicting pain, would, by most, be considered an immoral act.

If an injury is incurred by a nurse while handling a patient in contradiction to a no-lift policy, another moral dilemma arises. Should the nurse report the injury at the risk of being blamed, being subjected to disciplinary actions or worse, being fired or not report the injury and forfeit any compensation associated with an occupational injury.

Since lift teams are typically employed during peak needs, nurses who work during those hours have less exposure to the equipment. With a rapidly growing and changing market for available equipment, these nurses may be less competent with equipment utilization and safe patient handling. While it is every nurse's professional duty to meet competency standards, it is also clear that using a familiar, manual handling technique may be safer both for the nurse and the patient than an unfamiliar piece of equipment.

Mandated no-lift policies undermine a professional caregiver's autonomy and judgment. Nurses have a duty and a responsibility both to themselves and to their patients. By not allowing nurses to use their professional judgment on how to handle a patient, their ability to make informed decisions is limited.

Organizational and societal ethical issues.

Currently the main measures used to determine MSI rates are based on voluntary reporting. The assumption is made that the reported injuries include all injuries.

Organizations that decrease injury reporting can reap financial benefits by paying less in worker compensation, lost work days and replacement nurses. This benefit could foster work environments where policies are implemented that encourage the under-reporting of injuries. The under-reporting of injuries shifts the cost of injuries from the employer to the employee. One should, however, consider if this is an effective and ethical way to respond to MSIs in the workplace.

The FDA has been aware of the incidents that have occurred with the use of patient equipment, yet continue to consider the, low-risk. Equipment companies are not required to issue explicit warnings about how incorrect equipment use can lead to severe patient injures.

Finally, there appears to be a disconnect between the patient safety movement and nurse safety movement. When staff safety is taken into consideration, all effects on patients ought to be thoroughly investigated and addressed and visa versa. Allowing one population to benefit at the cost of the other might be considered immoral.

Implications from the Literature for Research

Despite the research regarding caregiver injuries and the implementation of mechanical lifting equipment on patient care units, caregivers continue to be exposed to the risk of musculoskeletal injuries. Solutions implemented by institutions to decrease injuries have included standardizing high-stress patient handling activities, the installation of ceiling lifts in patient rooms, and the introduction of safe patient handling policies/guidelines. Progress has been made in understanding which caregiver

movements and tasks expose them to increased physical stress, however, there are three important dynamics influencing care delivery which are not adequately understood: 1) the complexity of care delivery in the everyday experience,2) the influence of organizations by way of institutional texts such as policies and guidelines on care delivery, and finally, 3) how these organizational-based, institutional texts are influenced and driven by texts that go beyond organizational boundaries such as laws, standards and regulations and how these trans-local texts impact the everyday delivery of care. Patient handling and caregiver exposure to risk of injury can only be understood when considered within the context of the organization and the healthcare system in which the care is delivered. Addressing the problem of caregiver injuries will be more effective when considering the complexities of everyday care delivery, influenced by a care system that is both highly regulated and bureaucratic, as well as highly dynamic and unpredictable.

Everyday care delivery is a highly complex and dynamic process that is impacted by many factors such as the patient's condition and/or personality, relationships in the work environment, expectations, policies, the care environment, staffing levels, the organizational culture, and the availability of equipment and supplies (Corcoran, 1986). For instance, when a caregiver takes care of a patient, they need to take multiple factors, unique to the situation, into consideration such as the patient's condition (pain level, mental status, cooperation, etc.), specific patient requests (need for quiet, desire to be moved in a certain way), and patient personality (fearful, demanding, etc.).
This individualized care delivery is occurring in a work environment where the needs of

the individual patient are always in flux, e.g., a patient could have pain in the morning, but in the afternoon be pain free after receiving an analgesic, or feeling strong and energetic in the morning and exhausted and weak in the afternoon. These changes in the patient's condition require the caregiver to continually adapt to and respond to the current situation while caring for the patient. This individualized and constantly changing care environment creates an important dynamic when addressing the issue of caregiver exposure to the risk of injury. This complexity of everyday care delivery has not been adequately researched in the current literature.

Secondly, not only is care delivery a complex and dynamic process, it is also delivered in highly regulated, bureaucratic healthcare institutions which are complex and typically have non-linear structures (Harper, 2002). These healthcare institutions are driven by multiple organizational priorities. To ensure that healthcare organizations function smoothly and meet their institutional objectives, they implement a battery of texts such as policies, procedures, guidelines, job descriptions etc. (Ebright, Patterson, Chalko, & Render, 2003). These organizational texts are typically abstract, general guidelines that cannot account for the particularities of any given situation. Caregivers, however, must take these abstract policies, guidelines, etc. into consideration while simultaneously meeting the unique needs of each patient. Additionally, a guideline or policy only addresses a component of the care being delivered. Policies and procedural guidelines cover overlapping components of care delivery. For example, if a patient has a contagious illness and requires isolation, an isolation policy would need to be adhered

to, but the caregiver would also need to take into account many other policies and guidelines such as pain management, the patient bill of rights, safety guidelines, visitor policies, etc. Likewise, a "no-lift" or safe patient handling policy never functions as the sole policy, but always within a network of other policies and guidelines. We know that institutional texts influence the everyday practice (Smith 2005), however, it is unclear what the impact is on patient handling and on caregivers' exposure to risk of injury when they need to simultaneously take into consideration multiple policies and/or guidelines. The relationship between the individualized, everyday work caregivers deliver with the multitude of generalized institutional texts in the form of policies and procedural guidelines has not been researched in the healthcare setting.

Finally, healthcare institutions do not function independently but find themselves within an elaborate network of external organizations such as governmental agencies, accrediting bodies, labor unions, and insurance companies who require organizations to follow a plethora of texts such as laws, standards and contractual agreements. These texts are then translated by the healthcare institution into policies, procedural guidelines and others texts. To better understand why injuries continue to occur, this study will investigate the impact of these complex networks on the organizational policies and guidelines that drive the everyday work of caregivers as they handle patients.

In summary, although there is an understanding of high-stress lifting tasks for caregivers and how equipment can be used to decrease injuries, caregivers continue to be

exposed to the risk of MSIs. This study explores other significant components of care delivery that have not been researched in the healthcare system to expand the area of knowledge and better address the problem of caregiver exposure to risk of injuries.

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[1] Ergonomics is defined here as the scientific study of human work (Pheasant, 1991) and its implications on how to perform work

CHAPTER 3

Institutional Ethnography: A Conceptual Framework

Dorothy E. Smith defines an Institutional Ethnography (IE) as:

> *"Institutional ethnography explores the social relations organizing institutions as people participate in them and from their perspectives. People are the expert practitioners of their own lives, and the ethnographer's work is to learn from them, to assemble what is learned from different perspectives, and to investigate how their activities are coordinated. It aims to go beyond what people know to find out how what they are doing is connected with others' doings in ways they cannot see. The idea is to map the institutional aspects of the ruling relations so that people can expand their own knowledge of their everyday worlds by being able to see how what they are doing is coordinated with others' doings elsewhere and else when"* (D. E. Smith, 2005 p. 225).

The Origins of Institutional Ethnography

Dorothy E. Smith, a sociologist, academic and single parent realized early on in her academic career that she was living in two different worlds. Within the university system there was abstract talk about how people interact and live yet Smith realized that those theories and abstractions were very different from what she was experiencing as a single mother of two young children; they did not capture her experience. This prompted her

to look at human experience in a new way, by talking about her own everyday experiences rather than by examining theories. As Smith talked with other women about their every day experiences, she discovered that there was a deep schism between the actual experiences of women and sociological theories and societal structures such as class, gender, and/or race that claimed to represent the experiences of women. Initially, the discovery that the everyday experiences and identity of women was invisible led to a reaction of anger that was described using terms such as oppression, rape, harassment, sexism, violence and patriarchy (Smith, July 2008). Finding a common language for the experiences and identity of women was more than applying new terms; it facilitated a sense of shared concerns and validated the need for a political representation in order to voice their experiences. Without political presence, their everyday experiences and work were invisible.

In *The Every Day as Problematic*, Smith describes how, as a mother working at home, she clearly felt and lived as a woman. Yet the moment she entered the university setting with its "text-based world of scholarly work and university administration" (Smith, July 2008), her identity as a woman was not recognized and became invisible. By examining her role as an academic from the perspective of her "everyday bodily being" of woman and mother, Smith discovered relations to which she had previously been blinded. These new perspectives allowed her to see that many social relations, and, in particular, people's formal roles, are mediated by texts, forms and reports (Campbell & Gregor, 2004), for example, how tenure track requirements described in

university policies impacted her mothering. The discovery that texts and power relations profoundly impact the everyday experiences formed the foundation for Smith's future work.

Smith saw the women's movement as an opportunity to bridge the gap between what people actually experienced and the sociological theories intended to represent people and their experiences. Having women examine their own experiences as basis for theories instead of using traditional sociological approaches (in which the sociologist distanced themselves from the everyday human experience) was a drastically new approach. Talking about everyday experiences had become a means of discovering knowledge! In finding a common language to reflect the everyday experiences, not only were women enabled to share their experiences with each other but also were empowered to make visible their experiences to others, thus opening the door for change and transformation. When new issues or problems arose or became evident in their everyday lives, for example, issues in parenting or being taken advantage of, they could be put into understandable terms, thus freeing women from the abstract subject of universalizing discourses (D. E. Smith, 1987; D. E. Smith, 1990).

Institution Ethnography: Central Concepts

Institutional Ethnography (IE) is Dorothy Smith's way of capturing the experiences of the everyday as they are mediated by institutions in the form of texts. Institutional Ethnography reveals the connections between the texts and the everyday and thus, the ruling relations that often are invisible in the actual doings and knowings in the everyday.

What distinguishes an IE from a traditional ethnography is the goal; the goal of an IE is the creation of an understanding of social and power structures within institutions that impact the everyday. Smith developed IE as an alternative to established sociological theories which tend to view people as objects rather than as subjects. Intellectually, IE is rooted in Feminist and Marxist traditions. On one side it makes visible the experiences and realities of people whos experiences are invisible within institutions. On the other side, IE helps achieve an understanding of how the actions of these people or groups are driven by the authorities to which they are connected. Often these ruling relations are not even evident to those who are impacted by them. That people are driven and impacted by powers above them and, importantly, that these dynamics are usually invisible to them is a key concept for Marx. Specifically, he argued that workers (proletariat) don't know they are being exploited by the capitalists for whom they work. Another contribution to Smith's development of IE was Marx's emphasis on the importance of understanding the experiences of "real people" in order to understand the "whole picture" of what is happening from a sociological perspective. Feminists share some Marxian positions but not all feminists are Marxists. All feminists, however, are concerned with the ways in which the social category of gender exploits, oppresses, or marginalizes women and their experiences (D. E. Smith, 1977).

To help explain the institutional systems and dynamics in complex bureaucracies such as the healthcare system, IE expands on Marx's concepts by using several important concepts including discourse, ruling relations, coordination, intertextuality, mapping

relationships, and institutional texts. These concepts are important because they facilitate the description and understanding of everyday work as well as how that work is coordinated and regulated by the institution.

Historically, sociology had ignored the voice and everyday experiences of certain groups and people, particularly women, evolving into a science that focused on the theorizing of human experiences by observing society as an "outsider". An IE begins and stays with the actual-lived everyday experience, starting with understanding the *discourse* of the group being studied. A discourse is a distinctive practice, language and reality that people within a certain group have in common. Discourses help give words to what people are experiencing, identify ways of knowing, and make visible the ruling relations impacting everyday action. In IE, the discourse is not a theoretical concept that loses sight of the people. It starts with identifying and embodying the experience of people; it recognizes those people as subjects and as an essential source of the knowledge that an IE creates. Smith emphasizes that Institutional Ethnography isn't a qualitative method/methodology but rather an alternative sociology that explores and discovers rather than theorizes; it learns from people's everyday knowledge of their lives and doings rather than imposing pre-formulated interpretations (Smith, 2008).

Ideally, in starting with the understanding the discourse of a group, the researcher of an IE should be part of, and intimately familiar with the every day experiences of the group being considered. In IE the researcher is interested in understanding the subjectivity of the everyday, in other words what is actually occurring and how that

situation is unique. As an *"insider",* the researcher can more easily understand and grasp what is happening in the everyday and thus able to see how those actions are *coordinated*. As a researcher of an IE, one stays with the experiences of the everyday but examines the relations that are behind those activities.

An important concept in IE is *institutional texts*. They are any type of media which are encountered in some form or another, and influence the actions and experiences of those within the discourse. Institutional texts come in the form of emails, websites, manuals, books, insurance papers, movies, legal documents, policies, bulletins, educational materials, billing forms, any data collection forms, laws, warning signs, etc. IE uses institutional texts as a means of exploring and identifying the ruling relations that coordinate the everyday experiences and activities of those in question. By exploring the interconnectedness of those texts, the ruling relations become apparent. For example, a "Fall Risk" or "DNR" name-band on the wrist of a patient would be a mere bracelet or piece of plastic if there were no policies, guidelines, quality improvement initiatives or procedures to support the bracelet. It is the interface between the bracelet and the texts, in this case, the policies and procedures that is the ruling relationship, that is, the nurse does not activate a code (Figure 3-1). A result of *institutional texts* is that the people or group they are intended for become objectified, that is, they lose their status as subjects. Institutional texts such as policies and guidelines cannot reflect the uniqueness of every situation that occurs. Objectification results in people being treated like objects rather than individuals.

Ruling relations are those relations that shape, influence and rule the activities performed in the everyday. Ruling relations are the interface between the actions of people performing their everyday work and the priorities of the institution in which the work takes place. Ruling relations become evident by examining the everyday actions of people and then mapping these to the institutional texts that coordinate and direct them. The discovery of ruling relations is a main goal and powerful outcome of IEs. Institutional texts give insight into an organization's priorities. On one side, institutional texts reflect the values, goals, and priorities of the institution. More importantly, one can identify what is not valued or not considered by an institution by seeing what is omitted in institutional texts. Only through understanding the everyday do these omissions in institutional texts become evident. By identifying people, groups or issues that are not included in institutional texts, an IE can make visible that which has been invisible. For example, a policy that requires nurses to turn patients every two hours might seem appropriate until one sees the pain it causes certain actual patients in real time and real space. At that point, it becomes evident that the uniqueness of patients and situations, in this case, patients in pain, are rendered invisible in the policy. The process of understanding the everyday and how it is impacted by institutional texts, along with understanding the *interconnectedness* or *intertextuality* of texts is referred to as "*mapping social relations*".

Ruling relations are often not apparent to those of a given discourse even though their actions are significantly ordered by these relations. By making ruling relations

explicit, an IE can provide a language and give voice to those previously invisible roles/persons/activities. IEs do not follow a linear process; they begin by understanding the everyday but quickly move to understanding how these activities are coordinated by texts, finding interconnections among texts, identifying ruling relations, and making evident invisible issues or dynamics. As discoveries are made the researcher moves back and forth between understanding the everyday and analyzing the institutional texts. Frequently the processes overlap or occur simultaneously.

IE is useful for examining healthcare delivery systems as healthcare is a highly complex and bureaucratic system regulated by a multitude of texts including laws, regulations, accreditation requirements, institutional policies, and so forth. In order for a person to receive care, institutions implement this network of texts in a manner that allows them to be brought into action in the everyday practice. This typically occurs in the form of implementing hospital policies and guidelines. The connections between the laws, policies and everyday practice are the ruling relations, which are typically invisible in the everyday. For instance, when a patient asks for a glass of water, it isn't overtly visible that this simple request is linked to hundreds of texts, such as federal, state and hospital water standards, background checks that verify employee suitability, plastic cup purchasing agreements between the hospital and vendors, plumbing and building codes, etc. Yet all of these texts are connected to that single request for a glass of water. IE focuses on those texts and their relations to what occurs in the everyday. The goal is to

better understand problems encountered in the everyday by identifying the power and social structures impacting the everyday to order to better address those problems.

To summarize the basic ideas of IE, Smith created the following formula:

AI + D + C = S (A[ctual] I[ndividuals] + [their] D[oings]* + [how] C[oordinated] = [the] S[ocial])

*And note, importantly, that people's "Doings" include what they "do" in language.

Important concepts are:

1. IE does not proceed from a theory or theoretical framework.
2. IE starts and stays in the everyday of people's bodily being.
3. IE starts with the doings of actual people and focuses on how their doings are coordinated.
4. IE explores how institutional texts coordinate and impact the doings of actual people in their everyday doings.
5. IE identifies the ruling relations between institutional standards, values, and priorities and the everyday.
6. IE creates an understanding of the social and power structures' impact on the everyday.

CHAPTER 4

Design of the Study

From Theoretical Models to Everyday Practice: Research Method and Design

The Purpose of the Study

The purpose of this study is to gain an appreciation for the complexity of patient handling delivered by caregivers and why caregivers continue to be exposed to the risk of injury. In particular, this study will examine the complexity of care delivery on inpatient care units that have implemented the latest research recommendations regarding safe patient handling that includes policies, guidelines, and the installation of mechanical lifting devices, specifically, ceiling lifts. To understand the complexity of care delivery one must understand the ruling relations that guide everyday practice in relationship to the organizational demands and priorities as reflected in the institutional texts.

Caregivers need to be in compliance with multiple policies, guidelines, codes and regulations while simultaneously considering the dynamic and unique needs of their patients. This must be accomplished within a highly complex and regulated healthcare system. By examining the interconnection between the actual practice of patient handling and the organizational demands, the complexity of care delivery is made evident. By understanding this complexity additional strategies to address the problems of MSIs in healthcare can be identified.

In order to understand this complexity, the researcher explored the everyday patient-handling practices of caregivers in institutional settings and investigated how the

institutional texts impact that practice. Knowledge of the complexities encountered in everyday practice and the influence of institutional texts can lead to new insights into why MSIs continue to occur. This research may also lead to an understanding of additional barriers to safe patient handling problems that is essential to the ongoing challenges of improving patient care. Thus, this study intends to add a deeper understanding to the important goal of decreasing the exposure of caregivers to risk of injury when handling patients, a goal shared by institutions, third-party payers, caregivers, and patients.

An IE does not stop at the identification of issues that are problematic in the everyday work of people, but seeks to understand how these issues are governed by institutional priorities and mandates as reflected in the institutional texts. For example, an IE reveals how a safe patient handling law is related to the organizational priority of achieving financial goals. Through the identification of the relationships between the texts and everyday practice (ruling relations), problems within the institution can be addressed with specific solutions. Specifically, in this study, the objective is to better understand the barriers to safe patient handling and to provide suggestions for addressing those identified barriers.

Aims of the Study

The overall aims of this study are to:

1. Describe the everyday work practices of caregivers as they handle patients on rehabilitation and neurology units in two institutions that have implemented safe

patient handling policies/guidelines and have installed ceiling lifts, and exposure to risk of injury.

2. Identify the influence of organizational-level institutional texts such as policies and guidelines on patient handling on two specialty units (rehabilitation and neurology).
3. Determine if the unique characteristics of the rehabilitation and neurology units and their respective institutional texts create differences in the everyday patient handling practices on those units.
4. Identify the ruling relations of trans-local institutional texts such as laws and accreditation standards on the organizational-level institutional texts and thus influencing patient handling.

Study Questions

1. How do the complexities of care delivery and the particularities of any given clinical situation impact how a caregiver handles patients that can lead to exposure to risk of injury?
2. What are the primary institutional texts that influence caregivers' actions when handling patients?
3. How do institutional texts impact the everyday practice of patient handling?
4. What and how do caregivers document/communicate back to the institutions about how they handled patients?

5. How are organizational-level institutional texts impacted by trans-local institutional texts such as laws, accreditation standards, etc.?

Study Design

This study is an Institutional Ethnography (IE) based on Dorothy Smith's theoretical work. IE utilizes a unique research approach that permits the researcher to make visible the ruling relations between the actual day-to-day experiences of people and the organizational priorities as reflected in institutional texts. By examining the relationships between everyday practices, the institutional texts that govern those practices, and the interconnectedness between texts, researchers are able to make visible how complex action is coordinated in the actual day-to-day world of work.

This IE uses two sources of data: 1) observations of everyday caregiver practices; and 2) institutional texts. To ensure that the caregiver data reflected practice as accurately as pragmatically possible, observations of caregivers in the real time and space of their work was necessary. Although data could have been collected by means of surveys or interviews only, these methods would yield data less complete than observational data. The observations occurred on four units. The observations were of particular caregivers and each observation period was followed by an interview with the participant. Interviews consisted of focused questions designed to clarify the participants' understand of how their work of patient handling is coordinated. Institutional texts consisted of three types: 1) "texts of the everyday" – these are texts found in the everyday practice of caregivers such as grease boards, 2) "mediating texts" – these are hospital-

level texts such as policies, educational materials, and guidelines and 3) "boss texts" – these are trans-local texts such as laws and regulations that cover multiple hospitals. Institutional leadership had a key role in identifying pertinent institutional texts. Through informal interviews, managers provided insights into the coordination of patient handling in terms of understanding local expectations revealed in job descriptions, orientation materials, and on-going competencies. They also did the same regarding such trans-local texts as the Patient Bill of Rights and the No Lift Law.

Study Sites

Data collection was completed at two large mid-western acute-care hospitals. Both institutions implemented safe patient handling programs several years ago. These programs, based on recommendations found in the current literature, included safe lifting policies and the installation of state-of-the-art lifting equipment as well as educational materials and programs. Data were collected in each hospital on the inpatient neurology and rehabilitation units. These units were selected for three reasons: 1) historically, both kinds of units have high rates of staff injuries, 2) both hospitals implemented safe patient handling programs in an attempt to decrease staff injuries, and 3) the lifting equipment in both institutions is considered state-of-the-art. The two specialty areas were selected because they have similar patient acuities, yet with different length of patient stays and different external regulatory guidelines with which they must comply. All four units are considered "state-of-the-art" in the area of patient handling equipment. The neurology units in both hospitals were newly built to accommodate the equipment. These

units admit high acuity patients who have an average length of stay of approximately five days. Caregivers on these two units consist primarily of Registered Nurses (RNs) and Nursing Assistants (NAs). In contrast, the rehabilitation units in each hospital are older units that have been retrofitted with built-in ceiling lifts. The average length of patient stay on these units is approximately 14 days. Caregivers on these units traditionally consisted of RNs, NAs, and some Licensed Practical Nurses (LPNs). In recent years, however, the number of LPNs has dwindled on both units.

The choice of sites was based on four factors:

1. *Control*: Units considered to be on the "cutting-edge" regarding safe patient handling served as a kind of control group. That is, they allowed the researcher to identify more clearly why exposure to risk of injury continues to occur despite known barriers to safe patient handling. These include the unavailability of lifting equipment, the lack of specific policies, and physical limitations such as room size.
2. *Comparison*: The two types of units are subject to different trans-local regulatory bodies, thereby allowing the researcher to examine how these differences impact the everyday work of patient handling.
3. *Recruitment*: Two hospitals and two units facilitated recruitment of participants.

4. *Protection of Institutional and Caregiver Anonymity*: Likewise, two hospitals and two units offered better protection of both individual and institutional anonymity.

Recruitment and Participants

Because Institutional Ethnography focuses on "the social relations of everyday life" instead of individuals, a range of caregivers was recruited for this study (Pence & Smith, 2004; Smith, 2005) on four patient care units. The caregivers on the units were told about the study at unit meetings and by receiving information through the unit communication structure, including email, bulletin boards, and news letters. Interested participants contacted the researcher and communicated their willingness to participate. In order to recruit a range of participants reflective of the unit caregiver demographics, a total of 32 caregivers (8 caregivers per unit) were recruited considering the following demographic characteristics: length of years experience both as a caregiver and in the specialty, sex, age, and caregiver role (RN, LPN or NA). All participants were contracted to work on either the neurology or rehabilitation units and were able to carry full patient care assignments. Float staff and staff on orientation or work restrictions were excluded. The research observations were performed on day, evening and night shifts as well as weekday and weekend shifts. (Table 1)

Caregiver Participant Observations

Caregivers were observed while performing their everyday work, with focused attention to when they were handling patients. Each participant was observed for a four-

hour period. Four-hour periods were selected to allow the researcher to experience the work flow and to allow the caregivers to immerse themselves in their work routine. Caregivers indicated in discussions with the researcher prior to the study that observation periods exceeding four hours in length would be burdensome. During the observation period, the researcher shadowed the participant, taking notes regarding any work that involved patient handling. Observations, such as time of day, conversations, patient handling procedures, and any "texts of the everyday" were recorded in written field notes. The researcher made note of any questions that arose from the observations. These questions subsequently formed the basis of the interviews that followed. The focus of the observations was to understand how patient handling worked in real situations. To accomplish this, the researcher shadowed the caregiver constantly from room to room, even when the intended reason for going to the patient was not to lift or move them. The researcher took particular care in noting what events, signs, conversations, and so forth impacted how caregivers handled patients. The combined observation time of all 32 participants was approximately 128 hours. During this period 148 individual patients and 237 caregiver-to-patient interactions that included some form of patient handling were observed. Once the researcher was confident of having achieved an understanding of the every day practice of patient handling, the focus shifted to examining which and how institutional texts ("mediating texts") and, subsequently, "boss texts" impacted the actual everyday work of patient handling.

Participant Interviews

After each four-hour observation period, the researcher interviewed the participants for approximately 45 minutes. Interviews were conducted and audio-recorded in a private area. Interview questions centered on the researcher's observations of the participant's care delivery with the objective of rendering as clear as possible why the caregiver did as she or he did. In so doing, the interviews also provided insights regarding the contextual factors and particular needs of individual patients that makes patient handling more complex than is suggested by policies. Finally, the interviews helped to identify texts that impacted the observations of patient handling work. The following are some examples of questions posed to participants:

- Could you please help me understand why you chose to assist Patient X from bed to chair using a gait belt?
- What factors influenced your decision to move Patient X back in to bed using the ceiling lift?
- How did the information you read in Patient X's chart impact how you transferred him?

As it was the researcher's goal to understand actual everyday practice, as it was observed, the researcher made an effort to avoid questions that addressed generalities rather than specifics were avoided. Examples of such questions were:

- How do you typically handle this type of patient?
- What do you see as barriers to using lifting equipment?

Interviews were conducted during caregivers' personal time so that patient care was not impacted and to ensure that the study did not have a negative impact on hospital productivity. Participants were compensated $75.00 for their time.

Tape recordings were sent to a professional transcriptionist after the researcher removed all identifying information of both people and institution. After the transcripts were returned, the researcher verified their content with the recordings to ensure accuracy and make corrections as indicated.

Patients

The focus of this IE was on the safe patient handling practices of caregivers, however, patients are the point of their work as will be evident in Chapter 5. No identifying information was obtained or collected from the patients such as hospital identification number, name, date of birth, room numbers, and so forth. The researcher made notes on patients only as pertinent to understanding how and why the caregiver performed their work in a certain way. This information included approximate age such as late eighties, approximate weight, underlying medical conditions, and patient responses to being moved. The researcher accessed the patients' electronic chart for specific lifting/handling instructions, for example, the nurse to nurse communication sheet, and for how the caregiver documented the patient handling events. Verbal consent was requested from all patients (and their family if present) for the researcher to observe the caregiver while working with them. Prior to accessing the information in the patient record, the researcher ensured that the patient had given the hospital a general consent for

their records to be used for research purposes. If a patient had not given this consent to access their medical record for research purposes (which occurred in only one instance), that patient's information was not accessed. No audio recordings were made of nor in the presence of any patients.

Institutional Texts

Institutional texts are a key element of Institutional Ethnographies. By mapping institutional texts, the ruling relationships between organizational priorities and everyday care are made visible. The three types of institutional texts (everyday, mediating, and boss texts) and the relationships between them were analyzed. The researcher identified everyday texts during observations by taking note of texts that guided practice such as grease boards and flow sheets. The mediating and boss texts were identified using four sources: 1) observations of practice with the associated everyday texts, 2) interviews, 3) the researchers' personal knowledge and 4) public domain search engines of web sites of regulatory bodies. After institutional texts were identified, copies were procured by obtaining institutional permission for organizational-level texts and by researching public domains for trans-local texts. The researcher did not have unlimited access to explore all organizational texts related to patient handling nor to information regarding caregiver injuries. This study is limited to those texts to which the researcher was given access. A condition for access was that all institutional identifiers be removed from the texts.

Ethical Considerations

Prior to collecting data, Institutional Review Board (IRB) approval was obtained from the University of Minnesota and the IRBs of both participating institutions. Participants in this study received full written disclosure of the benefits and risks associated with participating in this study (Appendix A). All participants received a copy of the consent at least one week prior to their observation, either by mail or email (Appendix B). Written consent was obtained immediately before the observation.

Potential risks to participants included:

1. The possibility of being identified by co-workers as a study participant.
2. The possibility of discomfort related to being observed.
3. The possibility of fear of consequences in the event that a procedural guideline was not followed correctly and had been observed. This inclusion of this risk was required by one of the participating institutions.

Maintaining confidentiality and anonymity of participants and sites is of foremost concern. The study was performed at two different, but similar locations in order to decrease the likelihood of identifying either individuals or hospitals. Neither site will be mentioned in any publications or presentations. All names and other identifying features of participants and institutions were removed and replaced with pseudonyms. Audio recordings of participant interviews were transcribed and will be saved in a secure password protected and encrypted disk on the University computer system. Participants

were read a script (Appendix D) during the consent process informing them of the study and the risks and benefits.

Analysis and Interpretation of the Data

The goal of the data analysis phase was to obtain an accurate understanding of the relationship between the every day practice of handling patients and how the institutional priorities and mandates, as reflected in institutional texts, impact the caregivers' work.

After the researcher had obtained all the data, he organized and transcribed his field notes and had the participant interviews transcribed. A single document was then created for each of the 32 observations containing: 1) the observation note, 2) memos and thoughts the researcher had taken during and after the data collection, 3) a transcript of the interview, and 4) references to institutional texts encountered during or after the observations.

The institutional texts were organized in two sets of folders. The first contained the "mediating texts" that were encountered during the observations. These were organized by observation number, for example, A1, C3, and so forth. The second set contained the "boss texts" that drove the mediating texts, for example, JACHO Standards, Safe Patient Handling Law, etc. These folders were named with the texts that they contained. The researcher placed post-it notes on the "mediating texts" making reference to the "boss texts" to which they pertained.

The researcher read through each of the documents several times, making notes regarding the ruling relations and notes clarifying the observations he had made. During the next step the researcher uploaded the 32 observation files into AtlasTI, a qualitative research analysis software program. This software was used to code all the observations and interviews by the patient. In the actual practice observed, caregivers walked in and out of rooms making it hard to see the total picture of what occurs with each individual patient. After coding the observations by patient, the researcher was able to pull up all the observations and caregiver comments for each individual patient (in chronological order). This allowed the researcher to understand the workflow of the caregivers and was a key step of the analysis. The chronologically organized patient observations were transformed into narratives. A sampling of these can be found in Chapter 5. The 32 participant observations resulted in 126 patient narratives.

After the narratives were compiled the researcher used the software program Xmind2008 to map the workflow and identify the ruling relations using the Ishikawa diagram also referred to as Fishbone diagram (Ishikawa, K 1990) (Fig 4-1). This diagram formed the outline for the two analysis chapters, Chapter 6, which describes and analyzes the institutional structures; and Chapter 7, which describes and analyzes the everyday work of patient handling, the institutional texts, and the ruling relations between them.

Trustworthiness of the Data

To ensure trustworthiness of the data the researcher consulted with content experts. The researcher asked caregivers to evaluate the narratives found in Chapter 5 and

received verification that the narratives accurately represented the variety of encounters that occur in everyday patient handling by neurology and rehabilitation caregivers.

To verify a correct understanding of institutional priorities and mandates based on the analysis of institutional texts, the researcher reviewed the findings with several institutional leaders who are knowledgeable in the area of patient handling (a nurse manager, a former nurse executive, a safety officer and a nurse educator). In analyzing the ruling relations and the connections between everyday practices of caregivers and hospital-level and extra-local institutional texts, the researcher worked with five University of Minnesota faculty members who were experts in the area of power relations in nursing, health-care information systems, health-care administration, bioethics, and qualitative research methods to assure the research had been performed with integrity and the findings were accurate.

CHAPTER 5

Narratives of Patient Handling

Introduction

The purpose of this chapter is to provide the reader with an overview of what patient handling looks like in every day practice on the four researched units. The researcher will describe some of the many scenarios observed during this study to give the reader an insight into the types of situations in which caregivers find themselves. During the study observations, 126 patient observations were made. The following narratives were selected to illustrate the complexities that accompany the handling of patients. By no means are these selected narratives intended to represent an exhaustive set of situations that might occur in everyday practice; rather they are meant to reflect some observations made by the researcher while he observed practice on two neurology and two rehabilitation units. The first half of this chapter will discuss observations made on the neurology units and the second half will describe observations made on the rehabilitation units. To ensure confidentiality no distinction is made between the two hospitals, in addition, all names in this chapter are fictitious, and participant identifiers have been removed.

Neurology Narratives

EMMA: Caught in Midair

A Bed to Chair, Chair to Bed Transfer

It's dinner time. Beth RN goes into Emma's room with a nursing assistant (NA). They put yellow gowns on prior to going into the room because Emma is being taken care of in contact isolation. Emma is an elderly woman diagnosed with Parkinson's disease several years ago; the illness has left a stoic expression on her face. After briefly greeting the patient, Beth RN disconnects the compression devices (plastics sleeves wrapped around Emma's feet that alternately deflate and inflate to prevent blood clots from forming), and then puts Emma's bed into its highest position by pushing a button on the side of the bed. Emma is rolled from side to side by Beth RN and the NA as they place a body sling under her. Beth RN ensures that the IV and Foley catheter are hanging freely and will not get pulled out when using the lift. Beth RN and the NA push and pull on the patient to get the sling attached correctly to the lift. The lift is raised using a control until Emma is hanging in the air. Using the rail system attached to the lift, Emma is maneuvered above her chair. When Beth RN is confident that Emma is in the right place, she lowers Emma down into the chair. Beth RN walks behind the chair and pulls on the sling so that the Emma's buttocks would be positioned in the back of the chair. Throughout this process, Emma closes her eyes, only answering "yes" and "no" when spoken to. The sling remains in the chair behind Emma and her tray is moved in close proximity so that she can reach her food. After giving Emma her eating utensils, Beth RN and the NA leave the room.

After about an hour Beth RN returns to Emma's room with a syringe of heparin. Emma is slumped over in the chair. She had eaten about half of her food and has fallen

asleep. Beth RN gives Emma the heparin in her abdomen and then using her communication device, contacts the NA requesting assistance to return Emma to bed. Beth RN turns to Emma, who has awakened and tells her, “I called somebody and we will be right back to help you into bed” and then leaves the room. Ten minutes later, Beth RN meets the NA in front of the room. They both gown up and put on gloves. Beth RN asks Emma, "Are you ready to get back in bed?” Emma, stares in front of her and only responds with a slight nod. Beth RN and the NA reposition the sling behind Emma and attached it to the lift. Beth RN says, “I am going to lift you up now.” and then starts lifting Emma up in the air by pushing a button on the lift control. The moment Emma starts lifting up she makes a grasping movement in the air, as if she is trying to prevent falling. When Emma is in midair, hanging in between the bed and chair, the lift stops working. Beth RN comments, “Looks like the battery isn’t charged up!” and pulls a red (emergency) cord on the lift which allows the lift to move manually. The nurses had received an email about a week earlier explaining how to charge the lifts using a different method. This new charging method, had lead to lifts that did not work, or stopped working during operation. They position Emma over the bed, and move the bed into the highest position (to decrease the distance between Emma and the bed). They are able to lower the patient down manually in bed. While this is happening Beth RN’s communication device alerts that she has a phone call. Beth RN responds with a frustrated voice, “I'll get it as soon as I can". Once in bed, Beth RN and the NA turn Emma from side to side manually to remove the sling and reposition her. Emma is

then lifted up in bed by a draw sheet. During this whole process Emma does not assist nor respond to what is happening. Finally Emma is turned on her right side and Beth RN props pillows behind her back to prevent her from rolling back. The compression boots are reconnected and Emma is covered up with a sheet. Beth RN asks Emma, "Are you comfortable?" Emma does not respond.

JASON: "This is very safe but it feels unsafe"

A Bed to Chair, Chair to Bed Transfer

It has been snowing all day but the as the day has progressed the flakes have become larger, coming down with more vigor. It is late in the afternoon and dinner has just arrived on the unit while an overhead announcement is made throughout the hospital that a snow emergency has been declared. Beth RN and the NA working with her go into Jason's room to help him up in a chair so that he can eat dinner. Jason is in his late 80's and has recently had a stroke. At Jason's bedside are his wife and daughter. The TV news is on and after briefly greeting Jason and his family, the caregivers' attention goes to the TV where the current snowstorm is being discussed. While alternating their attention between the TV and Jason, they remove his compression boots and multiple blankets. Beth RN says to the patient in a loud voice, "Jason, I'm going to swing your legs out of bed." Jason does not say anything but complies with what is occurring. The NA helps Jason sit up by guiding his back while Beth RN helps his legs to the floor. Beth RN says, "Jason, what do you think about that weather?" Jason looks straight ahead saying nothing. When Jason is sitting on the side of the bed, the NA walks around

so that both the NA and Beth RN are standing right in front of Jason. Beth RN tells the patient they will help him into the chair. Beth starts counting 1, 2, and 3 and at the count of 3, Jason is pulled up from under his shoulders. Beth RN had taken care of Jason yesterday and getting him up this way had worked well. The rationale for doing it this way was because it would help him regain some of his strength and mobility. Jason however shuffles to the chair with great difficulty. Beth RN and the NA put their legs in front of Jason's knees to support him stand. As Jason stands his IV gets caught and Beth RN turns around to free it. In the meanwhile Jason's knees start to buckle. Beth RN and the NA continue to hold Jason under his arms as they lead him down to the chair. After Jason sits, Beth RN says, "Wow, Jason . . . that was quite the transfer!" This transfer had been much more difficult than yesterday's, Beth RN tells me afterwards. Jason's wife and daughter who had been looking at the transfer nod their heads in agreement. Jason does not respond and starts leaning over to the left side of the chair. When Jason's wife sees this she stands up and helps him sit straighter. While the wife pulls Jason's arm, Beth RN props a pillow under his weak side. When Jason is all situated Beth RN asks, "Is that comfortable?" . . . Jason replies with a drawn out "Yeah". Beth RN and the NA leave the room.

After about three quarters of an hour, Jason's daughter comes to Beth RN and asks if her father could be helped back into bed. Because the previous transfer had been much more strenuous than anticipated, Beth RN starts looking in multiple linen rooms, the patient's room and closet, and the utility room for a sitting sling, but to no avail. In

frustration she turns to me and says, “Sitting slings are never available”. The NA finally finds a sling in a cart on the nursing unit next door. Beth RN and the NA go into Jason’s room. Jason is sitting slumped over in his chair. Beth RN says, “I will help you back into bed using the lift . . . this is very safe but it feels unsafe”. Beth RN lifts Jason’s legs up in the air while the NA positions the sling. While she is doing this, Jason starts falling forward. Beth RN responds immediately by pushing Jason toward the back of the chair. In the meanwhile, Beth RN's communication device hanging around her neck tells her, “You have a physician phone call on line 2”. Beth RN calls in a colleague for help as she goes to answer the phone. She tells the RN, “He cannot help, please stay with him until I come back". Beth RN answers the phone, takes a telephone order and returns to the room. The Beth RN’s colleague is supporting Jason in his chair by holding his shoulder while the NA is getting the lift ready. Beth RN and the NA hook the sling to the lift and lift him up in the air. Jason eyes are closed but he grunts as he is moved. They lower him onto the bed on his back. The patient is positioned toward the foot end of the bed. Beth RN and the NA lift Jason up in bed using the draw sheet that is under the patient. Beth RN lifts up Jason’s legs to position pillows under them and reconnects the compression boots. At that point Beth RN notices blood on Jason’s gown. He has a new skin tear on his right arm about 1 ½ inches long. She cleans it with normal saline. Jason shivers and sighs as she does this. Beth RN says, “Sorry…” Because Jason is on heparin, he bleeds easily. In the meantime, the daughter has gone out in the hallway and is pacing

in front of the room. Jason's wife is quietly crying in the room. The daughter returns and gives her mother a hug. After Beth RN dresses the skin tear she leaves the room.

BILL: " Oh, yeah? . . . "Yeah sure". . ."Okay"

Bed to Bathroom and Bathroom to Bed Transfer

It is nearly midnight when Amy RN enters a room with a sign posted on it that reads, "Check with the RN before entering". In the room is Bill, a gentleman in his late 50's who has been admitted with weakness and alcohol withdrawal. Amy RN read in her report that Bill had fallen on his knees the previous shift, but no injuries had been noted. When Amy RN enters the room, Bill looks at Amy RN with a blank stare. Amy RN asks him, "Would you like a sleeper?" She then continues asking him, "Do you remember where you are?" Bill responds with a sound of irritation in his voice, "I am here . . . in the hospital". Amy RN continues, "Why are you here?" Bill responds, "I am here because I am sick". Amy RN assesses the strength in his hands and then checks his pupils using a little flashlight she carries on her. She notices no abnormalities. She again asks Bill, "I can give you a sleeping pill if you need one." Bill responds, "I am fine." When Amy RN walks out of the room she turns to me and says, "I think he is still out of it."

It is 1 am in the morning. Amy RN enters Bill's room to check if he has any symptoms of alcohol withdrawal. People are arguing loudly on a reality TV show. Bill is still awake and is gazing at the TV. Amy RN asks, "Do you see any bugs?" Bill answers, "No". His urinal is on his bedside table and Amy RN asks, "Do you need to go to the

bathroom?" Bill responds, "Yes". Amy RN gets the walker which is standing in the corner of the room and helps Bill stand by holding him under his elbow. They walk into the bathroom and Bill sits down without saying anything. Amy RN asks, "Do you know how to call me?" Bill replies, "Yeah". Amy reminds him, "Call me when you are done so I can help you back to bed. When you are back [in bed] I will give you some Ativan." I walk with Amy RN to the medication room. She shakes her head and says, "He is still pretty disoriented." When Amy RN returns to Bill's room, she sees him walking toward the bed without the walker. Amy RN tells him, "You should not have gotten up by yourself, because you could get hurt." Amy RN helps him to bed and gives him his Ativan and leaves the room after having turned on the bed alarm.

Half an hour passes and Amy RN is sitting at the nurses' station documenting. All of a sudden an alarm goes off. Amy RN jumps up, looks down the hall lights and sees a flashing light and runs into Bill's room. Bill is trying to get to the urinal, which set the bed alarms off. Amy RN resets the alarms and gives Bill the urinal.

Amy RN continues her documentation when all of a sudden another alarm goes off. Amy RN hastily walks to Bill's room. Bill is standing next to the bed; his IV tubing is pulled tightly between the IV pump and his arm because he hasn't taken it with him as he is making his way to the bathroom. Amy states, "You really need to call us when you need to go to the bathroom and also to use your walker." Bill replies in a surprised voice, "Oh yeah?" Amy RN walks with Bill to the bathroom and situates him on the toilet. She

waits outside the bathroom door until she hears him moving and escorts Bill back into bed.

The clock in the hallway has just passed 2:30 a.m. as the NA and Amy RN come walking out of a patient room. They hear an alarm going off. Both rush to Bill's room who is sitting on the side of the bed and says nothing. Amy gets his walker and IV and asks, "Can I help you?" Bill, while looking at the floor replies, "I need to go to the bathroom." When Bill stands up there is a noticeable odor of urine. When Amy RN looks down she notices that Bill's bed and gown are soaked in urine. The NA looks at Amy RN and says, "I already changed everything earlier . . ." Amy RN gives Bill the walker and helps him to the bathroom. While walking to the bathroom she asks, "Do you feel like you can make it?" Bill does not respond. Amy RN continues, "Maybe we need to bladder scan you." While Bill sits on the toilet Amy RN and the NA replace the sheets on the bed. Amy RN's communication device starts ringing and sees that another patient is calling her. She looks at the clock on the wall and says, "Of course . . . he is ready for his pain medications". She asks the NA, "Can you help Bill back into bed? I'll be back with the bladder scan after I get this light and give some medications."

Amy RN gets the bladder scan and goes into Bill's room. When she scans his bladder she notices that it is empty. Amy RN asks Bill, "Do you feel like you need to go to the bathroom?" Bill responds, "I have been sleeping real good and all of a sudden I need to go . . . I don't like the water here so I don't drink much." Amy RN reminds Bill to put on his call light when he needs to go to the bathroom and leaves the room.

The next day 11 a.m. . . .

Tom RN is working on a computer in the nurses' station documenting the cares he delivered in the morning. While he is typing he hears an alarm go off in the hallway, a few seconds later his communication device also starts alarming. He rushes down the hallway where he sees a blinking light above Bill's door. When Tom RN enters Bill's room, he sees Bill walking to the bathroom. He looks at the board on the wall: "Up with RW & SBA", (meaning, "Up with rolling walker and stand by assist"). Bill is clumsily using his walker, bumping into the bedside stand and the door post while he tries to get into the bathroom. It looks like he is using his walker more to clear his path than to stabilize himself. Tom RN rushes to him and holds him under his arm. Tom RN says sternly, "Bill, please call me before you need to get out of bed". Bill looks at Tom RN with glazed eyes, smiles, and mumbles, "Yeah sure". Tom RN helps Bill sit on the toilet and reminds him, "I will be right outside the door, make sure to call me before you get up". Bill replies, "Okay". Tom RN starts straightening out the bed while he waits in the room. All of a sudden the door opens and Bill comes stumbling out of the bathroom without the walker. Tom RN takes a few quick steps to him and leads him back to bed while supporting him under the arm. After Tom RN helps him back in bed and reminds him again to call all for help when he needs to get out of bed. Tom RN leaves the room.

BERT: Procedural Enthusiasm

Bed to Gurney Transfer

Sue RN was asked by a colleague to help transfer Bert onto the gurney. Bert is in his mid-40's and weighs around 250 lbs. When Sue RN looks at the grease board she notices that there are no lifting instructions. Bert was going to radiology for an MRI scan. Bert's wife and some friends are at his bedside. They are laughing and teasing Bert about his hospital gown which fits him rather awkwardly. An orderly comes in with a gurney and Sue RN enters the room with the RN responsible for his cares. Bert is in his bed talking and laughing with his visitors, in his left hand he has an IV. As Bert's nurse is explaining to the orderly and Sue RN that they will help Bert over to the gurney using a sliding board, Bert starts moving over by himself. He moves clumsily onto the gurney with his legs swinging over toward the gurney while his head is still in bed. Sue RN rushes to catch his legs because it looks like he might slide off the gurney. His RN and the orderly call out, “Hold on!” Bert stops with his head on the bed and his feet on the other side of the gurney being held by Sue RN. When the visitors see this they silence down. Bert's RN and the orderly take the draw sheet and pull Bert's upper body over while Sue RN lifts his legs back onto the gurney. The orderly places a blanket over Bert and brings him to the radiology department as the visitors walk to the coffee shop.

BARB: "No, No, No . . . Ow, Ow, Owww"

Repositioning in Bed

It is a few minutes after midnight and Amy RN walks into patient Barb's room. Barb is in her 60's but looks considerably older. A few days ago she was transferred from the Intensive Care Unit where she had been admitted with leg ulcers as a result of many years of diabetes. The space around her bed is filled with equipment — 3 IV poles with pumps on them, a cardiac monitor, and a number of other machines. Before Amy RN enters the room she had put on a yellow gown and gloves because Barb had contracted antibiotic resistant bacteria and was in an isolation room to prevent the bacteria from spreading to other patients. Barb is sleeping. Amy RN turns to me and whispers, "She doesn't tolerate turning very well . . . we try to do one good turn a night after giving her some morphine." On the grease board next to Barb's bed is written, "Patient is on a Calorie Count!" and "Turn with 2." Amy RN takes a stethoscope that is hanging on one of the IV poles and listens to Barb's heart. She then looks at Barb's legs and feels them. Barb's toes are black and her feet are dark blue, as she looks at her calves the dark blue gradually lightens returning to normal color at her knees. When Amy RN touches Barb's feet she groans, but does not wake up. Barb is getting around the clock diuretics through her IV to prevent her legs from swelling up. On the side of the bed is a Foley catheter which is filled with urine that has the color of apple juice. Four monitor wires come out of her gown and are attached to a cardiac monitor. In her nose Barb has a nasal canula which is connected to an oxygen meter that is on the wall. In the dark room a red light is

visible on her middle finger of her left hand, an oximeter measures Barb's oxygen level. Amy RN activates the communication device that hangs from her scrub pocket to call the cardiac monitoring center. The voice of the cardiac monitoring nurse who answers can be heard throughout the room. The monitoring nurse gives Amy RN a number of readings which she writes down on a piece of paper. After Amy RN is done talking to the monitoring nurse, she takes a blood cuff which is hanging from a machine at the side of Barb's bed. She puts it around Barb's arm and pushes a button. The machine starts to make a humming sound and the cuff first inflates and then with a clicking sound deflates until her blood pressure of 104/47 shows up flashing on the cardiac monitor screen accompanied with an alarm. Amy RN turns around and pushes a button on the monitor that silences the alarm. Before Amy RN leaves, she slowly gives Barb some morphine through one of her IV lines. Barb continues to sleep through all of this.

Amy RN returns to Barb's room around 1:15 a.m. after rounding on her other patients. Amy RN re-gowns and re-gloves prior to entering the room. On the chair in her room is a sling for the lift. Amy RN comments, "There is no way we can get the sling under her with all the pain she is in." Amy RN explains that the morphine does not eliminate all of the pain but if much higher levels of morphine would be used this would impact Barb's breathing. Barb and her family had decided a few days ago they want her to be a "Full-code", which means that if her heart or breathing stops, they want her to be resuscitated and giving more morphine could cause Barb to stop breathing. Barb has also had problems with skin break down and incontinence making it difficult to keep a sling

under her at all times. After looking at Barb and all her tubes and lines for a minute, Amy RN uses her communication device to call in help from an NA. After a few minutes an NA in a yellow isolation gown comes into the room. Amy RN says, "I need your help turning her. Have you had her this last week?" The NA responds with a no. They lower Barb's head of the bed. Barb first starts moaning then crying, "No, no, no…" Amy RN tells Barb, "We are going to turn you . . . Can you give yourself a hug?" Barb cries, "Ow, Ow, Owww . . ." Amy RN and the NA each stand on opposite sides of the bed and take the draw sheet to turn Barb, who is not able hug herself or assist in any other way. They then lift up Barb's feet and move them very slowly, supporting them by the heels. Barb was now crying loudly, "Ow, oww, oww, owww! . . . ay, yay, yay!" Her black and dark blue feet were now visible. Amy RN asks, "Is the blanket sore on your feet?" Barb moans, "Yes". Amy RN gently places a sheet over her feet and says, "I can get you more pain meds soon." Barb continues to moan with her mouth open and eyes closed. As we walk out of the room Amy RN comments to me that Barb is a great change compared to the type of patients usually admitted to this unit, "She is a med/surg patient and not our usual neuro patient."

Amy RN and the NA are at the nurses' station completing paperwork at 3 a.m. Amy RN turns to the NA and says, "Let's turn Barb, we can't totally turn her but we can move her some . . ." Amy RN and the NA put on yellow isolation gowns and return to Barb's room. Barb has her eyes closed. Amy RN says quietly, "Barb, we are going to move you". Amy RN and the NA each stand on opposite sides of the bed and pull the draw

sheet. Barb starts crying as soon as she is moved, "No, no, no… Ow, Ow, Ow!" Her eyes are closed. Amy RN pulls Barb toward her. Barb starts crying louder, "No, No, No!" At this point the bed alarm goes on and sends a piecing sound through the room. The NA rushes to the foot of the bed to turn it off. They now carefully reposition Barb's feet who as she cries, "No, No, No . . . Ow, Ow, Owww!" When Barb is repositioned she quiets down. Right before Amy RN leaves, she reaches over to get close to Barb's ear and whispers, "You can go back to sleep now".

RON: New Admission

Gurney to Bed Transfer

It is 10:15 a.m., as Tom RN walks into a patient's room his communication device rings. It is the recovery room calling the report for a new patient. The person to be admitted is an elderly gentleman who just had a deep brain stimulator implanted to help minimize the severe tremors he has as a result of his Parkinson's disease. Tom RN walks into the room where the patient is to be admitted and puts the bed in its highest position. He puts a sling on it and checks how the lift works. He points out, "When you look at the lift you should see two lights on." Tom RN pushes on the controls and the lift makes a humming sound.

Tom RN's communication device goes off an hour later to notify him that his new admission has arrived on the floor and is waiting to be transferred over onto his bed. When Tom RN comes into the room he sees Ron, a frail looking gentle man lying emotionless on a gurney. His eyes are closed and he doesn't respond to the commotion in

the room. Next to the gurney is the nurse from the recovery room, a muscular male nurse who was over 6 feet tall. The sling that had been on the bed has been moved to a chair. The first thing the recovery nurse says to Tom RN is, "Grab that slide sheet and we'll pull him over." At this point the NA comes walking into the room. He walks straight to the side of the bed where Tom RN is standing and without a word being exchanged they both grab the draw sheet. The recovery nurse is on the other side, the patient is still sleeping. The recovery room nurse says, "Ron, we are going to move you over now." Ron slightly opens his eyes. The recover room nurse starts counting 1, 2, 3 . . . Tom RN and the NA pulled Ron over to the bed on "3". During the transfer the slider sheet comes out from under Ron and lodges itself between the gurney and bed. When Ron is in bed, Tom RN covers him up with blankets and moves the IV to a pole located next to the bed. The recovery nurse gives Tom RN report while he takes Ron's vital signs. The recovery room nurse rattles of a list of data: "O_2 sats 88 %, received 2 lit. of O_2, last B/P 142/71 . . . etc." After the report is completed, Tom RN, the NA, and the recovery nurse roll Ron onto his side and remove the slider sheet and a number of other sheets and blankets that were moved over with Ron from the gurney. When Tom RN and the NA leave the room and walk down the hallway, the NA asks, "What is his mobility level?" Tom RN responds, "I haven't seen anything yet in the chart . . . but I would say assist with two for now."

After the transfer Tom RN explains to me that there are a number of reasons why Ron was moved using the slider sheet. First, Ron is not very heavy and there were

three men transferring him over. Secondly, the recovery nurse knew Ron and Tom RN didn't; typically the person who knows the patient best has the lead in a transfer. Finally, Ron didn't have a sling under him when he came, trying to first get the sling under him is not practical because it takes a lot of turning and if you just had surgery that is not what most people want.

Nina: Bowling

Repositioning in Bed and Bed to Chair Transfer

Seven thirty in the morning — it was the beginning of the dayshift as Carol NA walks into Nina's room. Nina is lying in bed. She is in her mid 80's and had recently been admitted from a care facility for people with dementia, to the hospital because of a stroke. Carol NA asks, "Shall we help you up in bed for breakfast?" Nina responds, "That's okay, but I am not going to bowl today . . . I am NOT going to bowl!" Carol NA activates her communication device attached to her scrubs: "Can I get an RN to help give Nina a boost." After a few minutes the RN assigned to Nina enters the room. Carol NA explains that she wants to help Nina up in bed for breakfast. The RN walks to one side of the bed while Carol NA stands on the other side. They lay Nina flat and then using the draw sheet lift her up in bed. Carol NA explains that when patients are as confused as Nina the lift is not a good idea. Because Nina is "pretty small," using the draw sheet is the least frightening. Carol NA puts the head of the bed back up. When Nina sits up she shakes her head, "My son is going to come, but he is not going to bowl either!" Nina looks at the communication device that Carol NA has hanging from

her scrubs and asks, "What is that thing pointing to?" The RN tells Nina, "Nina, we don't want you to get up by yourself." Carol NA positions the call light so that it is within hand reach of Nina. She then turns on the bed alarm, but within seconds the bed starts to alarm, she resets it and again after a few minutes it starts to alarm. "I guess she is not in the right position," she comments as she pulls and tugs on some sheets and blankets. After a few more attempts, the alarm no longer gives a false alarm. Carol NA sets up Nina's breakfast tray and leaves the room.

Eight fifteen in the morning — while Carol NA is walking down the hall she hears Nina's bed alarm go off. Carol NA rushes over to Nina's room and finds her trying to get out of bed. Carol NA asks, "Can I help you?" Nina says in a calm voice, "I want to go and get my clothes." Carol replies, "You are in the hospital and need to stay in bed until the doctor sees you . . . so let me help your feet back in bed." Nina willingly lets Carol NA help her back into bed. Carol NA pulls the draw sheet under Nina to help position her in the middle of the bed. Carol NA tells Nina, "Please use the call light if you need anything or want to get out of bed. I am afraid that you will fall if you get out of bed by yourself." Nina nods while she is straightening the top of her sheets.

Eight twenty in the morning — Carol NA is changing a bed several rooms down from Nina when her communication device notifies her that Nina's bed alarm is ringing. Carol NA drops what she is doing and runs to Nina's room. Nina is trying to get out of bed and says, "I need to get home to get my clothes!" Her voice sounds frustrated this time. Carol NA reminds Nina that she is in the hospital and that she needs to stay in bed.

Nina responds, "Oh, yes". After Carol NA repositions Nina she returns to the bed she was making.

Eight forty five in the morning — Carol NA walks into Nina's room to check how she is doing. Nina is lying on her bed but had moved her legs off the side of the bed. The bed alarm is not going off. Her IV tubing and the tubes attached to the compression boots on her feet are stretched to their capacity. Nina's Foley catheter is visible but still seems to be in its normal position. Carol NA decides that trying to keep Nina in bed is probably not going to work and asks, "Would you like to get up?" Nina replies happily, "Yes please, I would like to get out of here!" Carol NA turns off the bed alarm, removes the compression boots, helps Nina sit up, and uses her communication device to call the RN. With Nina sitting on the edge of the bed, Carol NA puts a gait belt around Nina's waist. When the RN comes into the room Carol NA explains she was helping Nina into the chair. The RN replies, “I'll go and see if I can find a Velcro belt" (to keep her in the chair). The RN and Carol NA help Nina stand up. Nina starts rocking back and forth so Carol NA and the RN tighten their grips. Due to weakness on one side, Nina takes a couple of uncoordinated steps toward the chair and slides into it. The RN puts the Velcro belt around around Nina's waist and chair. Nina asks, "Can I get my clothes on so I can go home?” Carol explains, "You are in the hospital and will be here a few days." Nina responds, "Oh yes".

Twelve thirty p.m. — Carol’s NA communication device goes off. She is asked to help move Nina to a room closer to the nurses' station. Nina had been transferred back

into bed while Carol NA was on her lunch break. Nina is in her bed sleeping. First, Carol NA moves Nina's clothing, non-attached equipment and personal belongings. The RN and Carol NA quietly unlocked the bed and bring her into her new room. Nina sleeps throughout the whole move.

VINCENT: Family Affair

Repositioning in Bed and Sitting Up on the Side of the Bed

Pam NA stands at the nursing desk at the start of her shift making a list of tasks she has to do that shift when two women come walking up to her. The older woman says abruptly, "My husband is confused and wants to get out of bed, can you take care of that?" Pam NA walks back with them to Vincent's room. Vincent is in his mid-80's and was admitted with acute confusion related to some neurological problems he has. He is trying to get his feet out of bed, but because of his lack of strength and coordination he is unsuccessful. Pam NA asks, "Would you like to get out of bed?" Vincent replies, "Yeah." Pam looks at the grease board on the wall and sees written "up with 2 assist, up with gait belt". After looking at him again she says, "We better use the ceiling lift." She helps Vincent from side to side while she positions a sitting sling under him. After she has the sling positioned and the straps pulled in between Vincent's legs, she walks to the bathroom to get the lift. When she pushes on the lift controls she realizes the lift is not working. The lift had not been returned to its correct position and the battery was dead. Using her communication device she calls the RN for assistance. The RN comes into the room to assist Pam NA. Vincent's wife who has been standing in the corner asks Vincent,

"Do you want to stay in bed?" Vincent responds by mumbling, "Yeah". She turns to Pam NA and the nurse and says, "He wants to stay in bed". Pam NA and the RN turn Vincent to remove the sling and then use the draw sheet to help him back into the middle of the bed. They lift up the head of the bed and put the tray in front of him. When Pam NA and the RN leave the room they pass the daughter who is waiting in the hallway.
The daughter asks, "Is he in the chair?" The RN responds, "No we helped him up in bed."

When Pam NA returns to Vincent's room he has slid down in bed. His neck is at a 90 degree angle and he is mumbling incoherently. A little boom box is playing relaxing music. Vincent's wife says, "I think he is comfortable." Vincent is trying to move his legs to the side of the bed again. Pam NA puts the 4 padded side rails up. At this point the RN comes into the room, looks at Vincent and says, "Looks like you can use a boost up in bed." She puts the head of the bed down and automatically Pam NA moves to the opposite side of the bed. Using the draw sheet, Pam NA and the RN lift Vincent up in bed.

About half an hour later the bed alarm is going off in room in Vincent's room. As Pam NA goes into the room, she sees Vincent trying to get his feet out of the bed and shaking the side rails. With his hands he is reaching for things visible only to him. He is grunting and mumbling incoherently. Vincent's wife is sitting at the side of the bed and ignoring him. She looks at Pam NA, shakes her head and says, "He is totally out of it." Vincent continues to shake the side rails. When Pam NA asks Vincent if there is anything he needs, he doesn't respond. Pam NA picks up a cup of juice which is on his

night table and puts the straw to Vincent's lips. Vincent drinks about half the cup, sighs and relaxes motionless on the bed. When we walk out of the room Pam NA comments, "Yesterday the family wasn't here and Vincent was calm . . . It seems like every time his family is around he gets restless."

Pam NA sees Vincent's wife and daughter leave the unit while she is completing an I & O form at the nurses' station. After a few minutes Vincent's bed alarm goes off. Pam NA rushes into Vincent's room. Vincent has moved over to the side of the bed and is shaking the side rails. Pam NA helps Vincent sit up in bed. Vincent is mumbling and waving with his hands. His hand motions seem to indicate that he wants to leave. Pam NA puts down the side rails and has Vincent sit on the side of the bed next to her. After a few seconds Vincent starts leaning over onto Pam NA as he is unable to maintain his own position. His IV pole is on the other side of the bed and as he leans over the IV tubing gets pulled tight. As Pam NA and Vincent sit on the side of the bed he places his foot on Pam NA's foot. Pam NA laughs, "That's my foot." Vincent smiles. As they sit there for several minutes Vincent keeps leaning forward or to the side. Pam NA calls the RN using her communication device. After a minute or so the RN comes into the room. She stands by Pam NA and Vincent and supports Vincent while Pam NA gets up and walks to the night stand and bathroom to collect some supplies to prepare Vincent for bedtime. She puts the head of the bed down and tells Vincent, "We need you to lie down now." Vincent lies down while Pam NA and the RN lift his legs back into bed and use the draw sheet to pull him up in bed. The RN's communication device goes off and a

voice says she is needed "Line One for Cross Cover". She asks Pam NA "Will you be okay?" Pam NA responds with a yes.

HERMAN: Glad we didn't use the lift

Bed to Commode Transfer

It was nearly 6 p.m. when Connie RN walks into Herman's room. Herman, a large gentleman in his 80's, is just finishing his dinner. The room is dark except for the TV and some light coming from outside and from the bathroom. He sits up in bed with the tray pulled up to him. After he slowly moves his spoon to his mouth to take the last bite of his dinner, Connie RN takes the cuff that's behind him to take his blood pressure. The cars chasing each other in the action movie on the TV makes it difficult to converse. Connie RN asks Herman if she could turn down the sound level. His blood pressure is 108/75. Connie RN checks the pads that are under him because Herman had been having some diarrhea. When Connie RN looks at the grease board next to Herman's bed she sees "SBA" (stand by assist). When she asks Herman if he needs to go to the bathroom he replies in a low slow voice, "I will try." Using her communication device, Connie RN contacts the NA that is working with her and asks for assistance. She explains later that because she hadn't taken care of Herman before and he had a large frame, she wanted to be safe rather than sorry, thus asking for assistance. When the NA comes in to help, Herman sits on the side of the bed. The NA automatically puts a gait belt around Herman's abdomen. Connie RN and the NA move so that they are both standing in front of Herman and can hold the belt and his arm. As Herman stands up you can see clearly

that he is a head taller than both the NA and Connie RN. They help him walk and turn to the commode by guiding the belt and his arm. Herman moves slowly until he is standing in front the commode. Connie RN says to Herman who was staring into the distance, "You can sit down . . ." She repeats louder, "YOU CAN SIT DOWN!" But Herman does not respond, he just stares. At this moment, while standing in front of the commode, he urinates and defecates. I see urine run down the bottom of Connie's scrub pants and liquid stool run down Herman's leg and onto the floor. Connie RN says, "I guess you didn't quite make it." Connie RN and the NA help Herman sit down on the commode. Connie RN then looks down and realizes what has happened. "I got peed on and need to change," she tells the NA. Connie RN walks out of the room to put on some clean scrubs. She turns to me and says, "I am sure glad we didn't have him hanging in the lift . . . that would have been quite the sight!"

Rehabilitation Narratives

MILTON: "I NEED MY SLEEP!"

Chair to Bed Transfer

When Rosa RN gets up from reading report on the computer she sees that Milton's call light is on. When she goes to Milton, he is sitting up straight in bed. Milton is a large man in his early 50's. He worked in construction up until he got injured and was now in his final phase of hospital rehabilitation. He is visibly upset, his face red with sweat beads on his forehead. As soon as he sees Rosa RN he starts speaking loudly, "He (pointing a finger at his roommate) is rummaging all night. He also has all his lights on

and is constantly making noise!" . . . he takes a breath and raises his voice further, "I can't stand this anymore . . . I NEED MY SLEEP!" nearly screaming in the direction of his roommate. His roommate has the curtains pulled around his bed and is quiet. Rosa RN says, "I understand your problem . . . Just wait a few minutes . . . I will talk to the charge nurse and see what we can do." Rosa RN goes to the charge nurse to discuss the situation. They decide to temporarily move Milton into a room that is currently empty and have the day shift deal with more permanent moves in the morning. When Rosa RN returns to Milton's room he is pacing in the hallway outside his room. He limps away from the door for a few feet and then turns around and limps back. He is talking to himself and shaking his head. Rosa RN puts her hand on his shoulder and says, "I have found an empty room for you tonight. Tomorrow we can discuss where to go from here." While Rosa RN talks, Milton's red face gets instantly milder and his agitation turns to apology. Milton says in a much quieter voice, "I'm sorry to make so much trouble . . . I know I'm over-reacting . . ." Milton's pacing stops and he leans on the wall outside his room. When Rosa RN gets his wheelchair he sits down quietly. An NA and Rosa RN move Milton's belongings and bed to an empty room on the other end of the hallway. When Rosa RN brings Milton to his new room he tries to get up immediately saying, "I can walk from here!" He gets up, but is weaker than he thinks and starts swaying. He grabs on to an office chair that is close by, but because it is on wheels it starts moving. Rosa RN quickly responds, "Wait, I'll help you!" and grabs onto the chair and Milton's arm to prevent a fall. Milton apologizes even more profusely and gets

into bed. Rosa RN puts a foot brace back on Milton that he normally wears, but had taken off while he was pacing the hall earlier. Milton, "I'm so sorry for all the trouble I'm causing you . . . I am so sorry". Rosa RN replies, "Everything is fine, get some sleep and we'll solve things in the morning . . . Please use the call light during the night because you are in strange room". Milton is still apologizing when Rosa RN leaves the room.

MARK: Like a Mummy

Bed to Chair and Chair to Bed Transfer

Mark is in his 40's and has had diabetes for many years which contributed to his stroke a few months ago. He is tall and weighs well over 250 pounds. As a result of the diabetes, Mark is also legally blind. The transfer instructions on the board above his bed read "stand and pivot with 1 person with moderate assistance." The goal of Mark's admission to rehabilitation was for him to gain more independence so that he could live alone again in his own home.

Terri RN is Mark's nurse this shift and comes into his room about 8:00 a.m. to do an assessment and give him his medications. When Terri RN enters the room Mark is in bed. Terri RN asks Mark if he could sit on the side of the bed. Without help, Mark moves his legs out of bed and then rocks his upper body; with the help of his arms he pushes himself up to sitting. Terri RN says, "Great work! …What is the first thing you need to do?" Mark replies, "I should know this." Terri RN reminds him, "Your shoes!" Terri RN squats down and puts on Mark's anti-slip slippers and puts a gait belt around his abdomen saying, "Now try to stand." While she gently pulls on the belt, Mark stands up.

Terri RN tells him, "We need to buckle you up until we know you are safe to stand on your own". Mark is a head taller than Terri RN. They shuffle to a chair that is positioned a few feet away from the bed and Mark sits down. While Terri RN and Mark walk, his right leg is noticeably less coordinated than his left. After Mark sits he says, "That went good!" Terri RN gives him his medications and asks him to identify them. Mark feels each tablet by rolling them between his fingers and correctly identifies them. Terri RN checks his blood-sugar level then has Mark give himself his insulin and finally positions his breakfast tray in front of him.

When Terri RN returns to Mark's room after about 10 minutes to check how he is doing, he is sitting in front of his tray and is eating. Mark asks, "Is that small nurse gone?" Terri RN responds, "Yes, the night shift has gone home." Mark mockingly raises his hands and says, "Praise the Lord! . . . She put me in prison!" Terri RN explains that her colleague was trying to be careful because she didn't want him to fall. Mark responded, "Yeah, but I ain't no kid!" Terri RN reinforces, "Unfortunately we can't have you walk by yourself until therapy clears you." He continues, "That nurse had me in here wrapped up like a mummy . . . she was sweet though". Both Terri RN and Mark laugh.

After Terri RN leaves Mark's room, she goes into multidisciplinary rounds. In this meeting the physician, therapists, social workers and nurses discuss the treatment plans of the patients. Terri RN brings up, "Mark was walking around last night . . . but we asked him to stay in bed until he has been evaluated." The physical therapist responds

abruptly, "He is not even close to being cleared." There is no further discussion about Mark and the team moves on to the next patient.

After Terri RN returns to the floor, Mark puts on his call light and requests to return to bed. Terri RN squats down and removes his foot rest and passes Mark a cane. She holds Mark by the gait belt and helps him up. Mark takes small steps to the bed and sits on the edge. After a few seconds he lies down while Terri RN lifts his legs into bed. Terri RN returns to the nurses' station and sits behind a computer to document. Most of her documentation consists of filling in FIM scores and completing dropdown menus in the flow sheets. Terri explains that these are the forms that get audited, thus are important to have completed.

LINDA: Discharge to Home Independently

Bed to Commode and Commode to Wheelchair Transfer

It is the day shift and after Terri RN obtains report from the computer she goes into Linda's room. Linda, middle-aged, has had cerebral palsy all of her life. After a few recent falls at home she was admitted to the rehabilitation unit to learn some new transfer techniques and to allow some transfers bars to be installed in her home. Linda is scheduled to be discharged the next morning. She is sitting up in bed watching a morning TV show when Terri RN enters. She asks Linda if she needed to go the toilet. Linda responds with a yes. Terri RN looks at the grease board behind Linda's bed. On it is written "Flex point with maximum assist of 1 -2". Terri RN picks up the eraser on the ledge under the board and erases the "-2 ". She then steps over to Linda and helps her sit

up in the bed by pulling her up by the shoulders. Linda makes several spastic movements with her arms and legs as she sits up but then is able to position herself accurately. Terri RN puts a gait belt around Linda's waist and then squats down to put on Linda's socks and shoes. Terri RN tries to guide Linda by the gait belt to help her stand up, but Linda has a hard time maneuvering over a piece of padding on the edge of the bed intended to protect Linda while she is in bed. Linda holds Terri RN's arm while Terri RN pulls her up using the gait belt. Once Linda stands, they pivot to the commode with Linda holding Terri RN's arm and Terri RN holding Linda up by the belt. Once Linda sits on the edge of the commode, Terri RN walks behind the commode and pulls Linda up from under the arms. Terri RN explains to me as we leave the room, "We can't use the lift because of her spasms and tremors . . . just can't get her in the commode in a way that is comfortable . . . also, Linda will be discharging to home tomorrow and will not have access to a lift there, this is the final day for her to practice how to transfer."

After 10 minutes pass, Terri RN is notified by an NA that Linda would like to get off the commode. Terri RN stands behind Linda who is still sitting on the commode and pulls her up with the gait belt. When Linda stands the NA cleans her off. The NA then takes Linda under one arm while Terri RN takes her under the other arm and they pivot to a wheelchair that is standing a few feet away. As they move from the commode to the wheelchair I notice that Linda only comes to Terri RN's shoulders, requiring Terri RN to bend over. When they get to the wheelchair, Linda sits down on the edge and Terri RN pulls her up in the chair by standing behind the back of the wheelchair and pulling her up

by using the gait belt. The NA squats down to put Linda's feet on the foot rest. Her feet make frequent spastic movements on the foot rest.

Terri RN comments later, "Linda is going home tomorrow, and apparently she will have poles installed at home . . . I don't know how that will all work . . . but the therapists are confident. I get really nervous when I see her transfer."

ROSE: Incontinence Avoidance

Wheel Chair to Bed and Bed to Commode Transfer

It is in the early evening as Carla RN goes into Rose's room to ask Rose if she wanted to get back into bed. Rose, who is in her 80's and was admitted after spinal surgery, is sitting in a wheelchair intently watching *The Wheel of Fortune* on TV. Rose, is hard of hearing and has the volume up so high that it can be heard halfway down the hallway. Carla RN asks Rose, "How is your pain?" Rose does not understand what was said so Carla turns down the volume and asks louder, "HOW IS YOUR PAIN?" Rose responds, "By keeping up with the pain [medications] you avoid [me] screaming all night . . . I will take the pain pills whenever I can get them again." Rose continues, "Can you help me into bed?" Carla RN puts a gait belt around Rose's waist and places a walker in front of her. Carla RN then walks behind the chair in which Rose is sitting and puts her hand behind Rose's back to hold onto the gait belt. As Rose stands and pivots to the edge of the bed Carla RN asks, "What time are you going home tomorrow?" Rose responds, "Whenever my husband gets here." After Rose sits on the edge of the bed, Carla RN helps her feet into bed and then uses the draw sheet to position her in bed.

Later that evening, Carla RN answers Rose's call light. As Carla RN opens the door of the room, Rose is in bed and with a groan in her voice asks, "Can you get me an ice pack for my back? My back is killing me!" Carla RN gets several icepacks and by using the draw sheet helps Rose to turn onto her side and places the icepacks on her back.

Carla RN sits down to document. She documents how Rose was transferred with "Stand - Pivot" and in the FIM classifies her as a "4". Carla RN gets up to bring Rose the pain medications that are due. When she enters the room, Rose is tearful, "I don't know if I can go home . . . I can and then I don't, I can and then I don't, I can and then I don't . . . this surgery is different [than the previous one]". Rose continues, "Can you help me to the commode?" Carla RN helps Rose to the edge of the bed and then turns to get the walker and gait belt. Rose sees this and abruptly says, "It's just as easy to just hold on to you and pull myself over!" Before Carla RN can respond, Rose is hanging on her arm and pulling herself over to the commode. "When I try using the walker I just end up wetting myself." Rose exclaims once she is on the commode.

WIL: Depends

Wheelchair to Toilet, Toilet to Wheelchair, Wheelchair to Bed and Repositioning

Wil is a gentleman in his 50's who had been a successful businessman prior to getting cardiac problems. He was admitted to the rehabilitation unit from a long-term care facility. After having had cardiac surgery about 9 months ago, Wil encountered multiple complications which led to half a dozen surgeries, followed by several months in an intensive care unit. This left Wil hemiplegic. After Wil was admitted to a long-term

care facility, he became very depressed as this was not where he wanted to live. When Wil's wife saw this she decided to try to have Wil come home again. As a transition from the long-term care facility to home, Wil was admitted to the rehabilitation unit to undergo a rigorous rehabilitation process. Wil continues to have a tracheotomy and his cognitive abilities have been permanently impaired. Since becoming ill, Wil has not been able to eat food orally and is fed with a feeding tube. He has lost about 20 lbs but currently weighs 262 lbs.

Day 1. It is nearly 8 p.m. when Hanna RN sees Wil being pushed by his wife down the hallway in a wheelchair toward his room. The wheelchair is especially made for Wil and has a custom-made headrest to support his head. After a few minutes Hanna RN goes into Wil's room to see if he is ready to go to bed. The grease board across from his bed indicates "Stand and pivot with mod assist". Wil is sitting in his wheelchair with sweat beads on his forehead. When he sees Hanna RN he grabs her arm and shakes it. This startles Hanna RN who, after a few seconds, asks what he wants, but Wil just shakes her arm and smiles. Wil's granddaughter, who is in her early twenties is sitting on a stool next to him and holds his hands. After Wil lets go of Hanna RN he pulls his granddaughter's hand up to his mouth and kisses it. The granddaughter laughs and says to her mother who is sitting on the other side of the room, "See grandpa loves me most". Wil gleams, but his daughter, (the granddaughter's mother), looks irritated and says, "Don't talk like that". Wil's wife asks to see Hanna RN "for a second" outside the room. She says, "He has been more confused and paranoid. He thinks we don't want him to

come home, I just can't convince him." After Wil's wife returns to the room the family members say goodbye. They each kiss him on the cheek and leave. "See you tomorrow!" Wil looks at them for a second and says with a hoarse voice, "Bye" and then looks straight at Hanna RN. She asks, "Wil, do you need to go to the bathroom?" Will nods. She gets the walker stored in the bathroom and places it in front of Wil. She then puts a gait belt around his waist. Because of Wil's girth the belt is barely large enough. Hanna RN then helps pull Wil up by the belt as he uses all his arm strength to stand. Once he stands he pushes the walker in front of him taking little steps toward the bathroom. When he passes the bed, the wheel of the walker gets caught on a chair that is located adjacent from it. Wil starts swaying a bit and Hanna RN responds immediately by pulling up on the belt. Wil waits a few seconds until he regains his balance and then continues on into the bathroom. Hanna RN is helping him turn toward the toilet when all of a sudden he lets his behind drop down on the toilet. Hanna RN tightens her grip on the gait belt and says, "Wil . . . slow down!" After a few minutes when Wil says he is done, Hanna RN tries to pull Wil up again, but even after several attempts Hanna RN is unsuccessful at having him stand. Hanna RN pulls the call light cord and waits for assistance. After a few minutes an NA comes into the bathroom. Hanna RN explains to the NA that Wil doesn't have the strength to get up and directs the NA to pull up on the belt on one side and she will pull up on the other side of Wil. This works well and Wil is able to stand up on the first try. While the NA is standing next to Wil, Hanna RN bends down to put some Depends on. After this is completed Wil starts walking to his bed with

the NA on one side and Hanna RN on the other. Just as they pass the bathroom door, Wil's Depends start sliding down. Wil keeps walking as the Depends slides to his ankles, nearly tripping. When he becomes aware of what is happening he starts to bend over to try to pull them up. Hanna RN calls out, "NO! NO! . . . Stand up, I don't want you to fall!" while pulling up on the belt. The NA bends over and pulls up the Depends. Wil continues to walk toward the bed and sits down on the edge. Hanna RN helps lift Wil's legs up onto the bed, removes the plug on his tracheotomy and puts on his 0_2. When she measures his percent oxygen saturation it reads in the low 80's. After a few minutes the reading climbs to the higher 80's and lower 90's. The NA and Hanna RN turn Wil from side to side to place a sling under him. Using the ceiling lift they lift him up in the air to position him high up in bed. While the lift moves up, Wil's head and neck start bending backwards as the sling only reaches his shoulders and does not support his head. Hanna RN reaches out her hand to support Wil's neck. Once up in the air the NA and Hanna RN swing Wil back and forth from the foot end of the bed to the headboard. Once he is in the highest position they lower the sling so that he is up in bed as high as possible. After only a few minutes Wil falls asleep.

Day 2. It is dinner time and Wil is off the unit with his family. Petra RN is taking care of Wil this evening and goes to his room to set it up for the night. While she is pulling back the blankets and checking the oxygen system she informs me, "I have never taken care of him, so I like to make sure I have everything ready".

An hour later Petra RN passes Wil's room and notices he has returned. She walks into the room and introduces herself. Wil looks at Petra RN and before she is done speaking says, "I have to pee." Petra RN squats down and lifts up his feet from the wheelchair footrests and puts them on the floor. She then asks, "Can you lean forward?" Petra RN pushes Wil forward by the shoulders while she puts a gait belt around his waist and places a walker in front of him. Wil starts to whimper and when Petra RN looks at his face she sees tears rolling from his eyes. Petra RN stops and asks, "Are you okay?" Wil doesn't say anything but puts his hands on the walker. Petra RN says on the count of three try to stand up, "1, 2, 3" and on the count of three, she pulls on the gait belt while Wil stands up and starts walking to the bathroom. In the bathroom Petra RN helps him lower himself down on the toilet. She needs to use force to prevent him from sitting down too fast. When Wil is done, Petra RN helps him stand up by pulling on the gait belt with the walker in front. Wil does not start walking by himself so Petra RN prompts him repeatedly, "Take a step, take a step (x16)", as she holds tightly onto the gait belt. She helps him walk to the wheelchair she had positioned in front of the sink for him. After Wil sits down Petra RN gives him a washcloth to wipe off his face which he does with very slow motions. She bends over and takes off his shoes and puts on some slippers and then asks him to stand again. Wil stands up slowly and holds on to a bar attached to the bathroom wall, Petra RN kneels down and pulls off his trousers and puts on a Depends. While Petra RN is doing this, Wil starts reaching behind him to pick up a piece of paper that is lying in the seat of his wheelchair. Petra RN looks up

and saying, "NO WIL! Hold on with two hands so you don't fall!" Wil returns his hands back immediately. Wil sits back in his wheelchair once his Depends are on and Petra RN pushes him back into the room. She asks Wil if he can take off his shirt. Wil starts to fiddle with his shirt but is unable to take it off or to unbutton it. When Petra RN sees this, she lifts up his arms and pulls the shirt over his head and helps Wil put on a gown. After checking the gait belt, Petra RN asks Wil to stand and turn toward the bed. Wil stands, but as he does he notices his Depends. In a slow motion he tries to remove the stickers that keep it together. Petra RN responds calmly: "Just leave those, they are fine . . . try and sit on the edge of the bed." While Petra RN holds the gait belt Wil sits down, but he is unable to hold himself and his upper body rolls back on the the bed. Petra RN helps Wil sit up again and guides his upper body and head on the pillow. After Wil is lying in bed, Petra RN checks Wil's feet. They are swollen with edema. She hooks up the tracheotomy to the O_2 and turns on the oxygen saturation monitor; it reads 97%.

Day 3. It is morning, and Timothy NA is working the dayshift with a student. They answer Wil's call light. A physical therapist who is standing in the room had turned it on. As soon as she sees Timothy NA she says, "Another physical therapist should be here in about three minutes. Can you just stay with him until she comes?" As she leaves without any further instructions, Wil is sitting partially dressed in his wheelchair. Timothy NA and the student wait in the room for about 10 minutes but nobody shows up. Timothy NA finally says, "Maybe we can get him ready." Timothy NA and the

student put the chair at a 90 degree angle in front of the toilet and each takes hold of Wil's arms. Timothy NA directs, "On the count of 3 . . . 1, 2, 3." At "3" they pull on Wil as he slowly stands up, turns slightly and sits down again. Wil sits on the toilet for about 5 minutes and still no physical therapist has shown up. Timothy NA decides to help Wil back into the wheelchair. They transfer him back in the same way they assisted him to the toilet. When Wil is in the wheelchair they wheel him into his room and position him in front of the TV, giving him the call light before leaving the room.

Day 4. It is 2:00 a.m. and an alarm goes off in Wil's room. It is his oxygen saturation monitor. When Rosa RN and an NA go in they see on the monitor indicates Wil's oxygen saturations are in the low 80's. Rosa RN looks at the NA and says, "We need to reposition Wil on his side." Wil is fast asleep as they put the head of his bed down. Wil is laying on a sling which Rosa RN hooks to the ceiling lift. Wil remains asleep as the lift pulls him into the air. They swing Wil slightly up and down and when his head is closest to the head end they lower him down, then Wil is manually moved to his side. Rosa RN guides Wil by his shoulders while the NA pushes his back. Wil opens his eyes. When Rosa sees this she asks, "Are you okay?" Wil doesn't respond. She asks again, "Are you okay?" Wil closes his eyes without saying anything. Rosa RN covers Wil up and leaves the room. A few hours later she asks the NA if she can help. They return Wil's room, turn on the lights and turn him to his side as Wil continues sleeping. While rolling Wil, the NA checks his Depends and notices it is filled with stool. They

roll Wil back and forth several times to first remove the Depends and clean him up, put new Depends on and finally position him on his side as Wil continues sleeping.

LESLIE: "With Moderate Assist of 1 - 3 with RN"

Bed to Commode and Commode to Wheelchair Transfer

Timothy NA and a student he is training walk into Leslie's room before breakfast. Leslie is sleeping and is audibly snoring. On the grease board by the door is written, "Stand and pivot with moderate assistance of 1 – 3 with RN". Leslie's large body lays motionless in bed except for her chest that rises and sinks with every snore. Leslie, who is in her fifties, had a stroke causing aphasia making communication challenging.

Timothy NA places a blood pressure cuff on Leslie's upper arm. As a regular cuff is not large enough, he uses a thigh cuff. When he turns on the pump and the cuff starts inflating, Leslie starts moving her arm but does not appear to wake up. While the machine is pumping, a voice comes out of the intercom system in the room and asks, "Timothy?" Timothy NA looks at the intercom above the bed and answers, "Yes?" "Could you answer a call light in room 123?" responds the voice. Timothy NA asks the student if he can finish taking the blood pressure and leaves the room for a few minutes. When Timothy NA returns he is accompanied with Leslie's RN. The RN explains how Leslie should be helped out of bed. Because of her size, weighing over 300 lbs, along with her limited ability to assist when getting out of bed, transferring Leslie to the commode can be a challenge, the RN explains. The lift is not to be used because this would be in conflict with Leslie's rehabilitation treatment plan. The RN wakes up Leslie

by shaking her arm. Once her eyes are open, Timothy NA helps pull Leslie's legs out of bed while the RN and the student lift up her upper body. Leslie helps by pushing up from the bed using her arms. While they are in the middle of helping Leslie up, a physician walks into the door and starts talking to the RN. The physician is upset that no RN is available to round at that moment. The RN responds, "I will be with you as soon as I have Leslie up." The physician walks away saying out loud, "I will go to the nurse manager." After Leslie is sitting on the commode, the RN leaves the room and Timothy NA and the student help her get dressed. Timothy NA instructs the student to first dress the weaker side. Timothy NA puts a walker in front of Leslie and when her upper body is dressed, they help her stand by putting Leslie's hands on the walker while Timothy NA and the student pull Leslie up under her arms. Leslie stands up slowly, visibly using the strength in her arms while Timothy NA and the student pull until she stands and is stable. Timothy NA proceeds by taking a washcloth and cleaning her peri-area. The student lifts up her abdominal folds so that Timothy NA can get to the unwashed areas. After this is done he puts on a Depends, after which he asks Leslie to sit down again so that her trousers can be put on. After the trousers are pulled to Leslie's upper legs, Timothy NA asks Leslie to stand again in order to pull them up and close the buckle. After the trousers are buckled up the student pushes away the commode and replaces it with Leslie's wheelchair. Leslie sits down but she is not positioned straight in the chair. Timothy NA stands behind Leslie and holds her elbows while the student lifts up her upper legs. After two tries Leslie sits comfortably in the chair.

LARRY: The Halo Affect

Bed to Chair, Sit to Stand

Aaron RN starts out the day shift with looking through the electronic charts of his patients. Aaron RN had been off several days and this was his first shift back. After Aaron RN has read the nurse-to-nurse communication sheet and the flow sheets he briefly speaks with the RN who took care of his two patients that night. She reports that "nothing new had happened" in the last few hours.

At the beginning of the shift Aaron RN typically likes to briefly see his patients, as this helps him be better aware of what is going on and thus allows him to better plan his day. The first room we enter is Larry's room who was admitted last evening, making today his first day of rehabilitation. Larry, who is an athletic-looking man in his early sixties, with a muscular abdomen and arms, has had multiple surgeries after the removal of a spinal tumor. He also has a tracheostomy which causes him to be mute when he is in bed and hooked up to oxygen. On his head he has a Halo-traction unit, a large metal frame attached to his skull with screws, meant to keep his neck and head immobilized. Larry is lying in bed with an O_2 dispenser covering his tracheostomy along with a variety of other tubes including an IV, a feeding tube and a Foley catheter. Aaron RN introduces himself by shaking hands. Larry mouths, "Hi, I am Larry" without making a sound. When Aaron RN asks him how he is doing he sticks up his thumb and mouths, "Good". After Aaron RN takes Larry's vital signs, he leaves the room to get Larry's medications. When Aaron RN returns to the room, Larry gestures that he has been incontinent of stool.

Larry has been receiving a new kind of tube feeding which has caused him to have serious diarrhea. After Aaron RN puts the bed into the highest position, he helps Larry turn on to his side, made difficult by the Halo, which does not allow Larry to move his head or shoulders. Aaron RN guides the Halo while turning him. After Larry is lying on his side, Aaron RN positions a pillow under his shoulder to prevent Larry from rolling back while he is being washed. Once washed, with Larry sitting back up in bed, Aaron RN asks, "What is your goal for today?" Larry mouths, "Up" and points his finger in the air. Aaron RN interprets, "To get up?" Larry sticks his thumb up in the air to which Aaron RN replies, "Sounds like a good goal to me." Aaron RN then leaves to see his other patients and give an update at the multi-disciplinary rounds. In rounds the multi-disciplinary team agrees that it is essential for Larry to start getting up today. As we walk back to the unit after the meeting, Aaron RN explains to me, "My role is to give insight into what is happening when there is no therapy and to make sure we are all 'paddling in the same direction."

When Aaron RN returns to Larry's room an occupational therapist (OT) is standing in the room. As soon as she sees Aaron RN she asks him, "Can you assist me in pulling him up?" Aaron RN holds Larry by the shoulders while the OT helps his feet to the ground. As Larry sits, he has a hard time maintaining his balance because of the weight of the Halo. As he is trying to find his balance, three of his family members come walking into the room, Larry's wife, his daughter and his son-in-law. The private room all of a sudden feels like a can of sardines. Larry’s wife appears pleased and comments,

"Great! This is the first time out of bed in a long time!" The OT explains she is trying to have Larry button his own shirt today. Larry is making some gestures to his family as the OT speaks, prompting Aaron RN to suggest plugging the tracheostomy to enable Larry to talk. Larry sticks his thumb up in the air in agreement. There is some confusion whether the oxygen should remain on or not. Larry's wife takes the lead and shows how she has plugged the tracheostomy in the previous weeks. Once the tracheostomy is plugged, Larry starts coughing and the tracheostomy plug flies through the room. Aaron RN grabs a clean plug from the beside table and reinserts it. He then puts a gait belt around Larry's waist. Both the OT and Aaron RN help Larry stand and pivot over to a wheelchair. The OT instructs Larry in how to put on his shirt and how to best button it up. This is no small feat as Larry can't look down. When the shirt is nearly buttoned up a physical therapist (PT) comes into the room and takes over from the OT. The PT suggests to Larry, "Maybe you can stand by the sink and wash your face." It takes some maneuvering of the wheelchair to get it into the bathroom because the chair gets stuck as a result of the foot-rests being collapsed at the side of the wheelchair. Aaron RN bends down and removes them. As the wheelchair is situated in front of the sink, the PT asks Aaron RN, "Can you stay here, because it is his first time up?" The PT and Aaron RN move Larry close to the sink and help him stand by pulling on the gait belt. Larry seems unstable at first. He says with some irritation in his voice:, "How much does this thing on my head weigh?!" After finding his balance, he is able to stand for about 15 minutes. Then Larry says, "I feel a little light headed." Aaron RN suggests checking his oxygen

saturation level. His saturation fluctuates between 86 and 88%. They help Larry sit down and push him back next to his bed where Aaron RN unplugs the tracheostomy and puts on oxygen.

LOUIS: "Wet Pajamas"

Bed to Chair and Repositioning in Bed

Louis is sleeping when Hanna RN hangs the 9 p.m. IV bag. The TV is on with a reality police show. Cars are being chased by the police and hard handed arrests are made, yet none of this seems to faze Louis. Hanna RN puts a blood pressure cuff around his arm and takes a blood pressure which causes Louis to open his eyes and as he looks at Hanna RN he says, "I need a new shirt for today". Hanna replies, "Louis, it is time to go to bed . . . you don't need a shirt . . . look outside it is dark." Louis looks at Hanna RN for a few second and says, "You are right." Hanna RN feels the bed and notices it is saturated with urine. She says, "Louis, I think I need to change the bed, do you think you can sit on this chair?" Louis responds, "My left side is stronger than my right side." Hanna RN helps Louis sit on the side of the bed and then supports him under his arm while he stands up. After Louis stands, Hanna RN pulls down his trousers and underwear. She needs to twist around him in order to do so. Hanna RN then puts a towel on the chair and says, "You can sit now." Louis mechanically sits down. At first he sits straight, but after a few minutes, he starts leaning over to his right. When Hanna RN sees this, she rushes to him and helps him sit up straighter again while reminding him, "Remember to sit up straight". At that moment the pump starts alarming, startling Louis

and causing him to look up. The screen on pump says the line is occluded. Hanna RN looks at the line and sees it is kinked. She straightens out the tubing and the pump silences itself. After the bed has been changed and Louis has clean pajamas on, Hanna RN helps Louis back in bed. She covers him up and asks him if it is okay to turn off the TV. Louis says, "That's okay." With the TV off, the sound of the pump is the only thing audible in the room.

After about an hour, Hanna RN returns to check the IV. The room is dark except for some foot lights. Hanna RN notices that Louis has slid to the bottom of the bed and wakes him up and says, "Can I help you straighten up in bed? . . . Please hold the side rails and pull up your knees. On the count of 3 push yourself up 1, 2, 3 . . ." At three both Hanna RN and Louis exert energy, but this does not result in much movement. Hanna RN steps out of the door and asks an NA who is sitting in an alcove across the hallway to help her. After turning on the lights Hanna RN and the NA use the draw sheet under Louis to pull him up. Hanna RN looks at her hands and then notices that the bed is wet again. Louis sees her reaction and says, "I think I spilled that." pointing to the urinal. Hanna RN calls back the NA who had just left and by rolling Louis back and forth they change the sheets and Louis' pajamas again.

CHAPTER 6

The Institutional Structures

Caregivers do not lift, move and reposition their patients in an isolated environment, but within large, complex and bureaucratic health-care systems that are regulated by multiple laws and agencies. To understand the handling of patients, this practice must be considered within the context of the organizational structures in which caregivers find themselves. This chapter explains the main structures in which caregivers work and deliver patient care. First there will be a discussion of the teams in which caregivers perform their work and the organizational structures that support and regulate those teams. Secondly there will be a description of the structures that support patients being admitted and placed within hospitals. Finally this chapter describes the institutional Safe Patient Handling Programs that are in place in both of the observed hospitals and how these programs have been formed by legislation. There are many more structures and forces at work impacting how caregivers deliver direct patient care such as scheduling and quality improvement initiatives, however, this chapter will limit its attention to those organizational structures that predominantly influence the handling of patients in the everyday practice.

The Structures that Govern the Nursing Team

When nurses or nursing assistants begin their work at the start of their shift, they do so as part of a nursing team. Nursing teams are groups of caregivers who are assigned to the same unit and patients. The particular compensation of a given team is

determined by complex schedules driven by previous patient census data, prediction of staffing needs, and caregiver requests. Registered Nurses and nursing assistants work closely together, with the nurses delegating certain care tasks to the NAs. Although the nurses delegate to the nursing assistants, the nursing assistants do not have a formal reporting relationship to the RN's, but report to a nurse manager who has the primary responsibility for the functioning of the floor. In years past the nurse manager, formally head-nurse, was actively involved in the actual caring of patients, however their role has become increasingly administrative in nature, rarely leaving the managers time to participate in direct care delivery. The current nurse manager role is primarily performing administrative tasks such as staff evaluations, developing policies, coordinating schedules and payroll, managing the budget, hiring new caregivers and dealing with human resources related issues such as disciplinary/corrective action. On all of the four units observed in this study the number of caregivers on each nursing team exceeded 100 staff members. This shift in the manager's responsibilities is not only visible in the work they perform but also in how they dress. When the researcher started nursing in the early eighties, nurse managers were dressed in crisp starched uniforms, but the nursing uniforms have, for the most part, been replaced by business attire.

The nurse manager has a key role in implementing institutional goals and priorities on the unit level. They are members of multiple committees such as nursing practice, policy, education, quality improvement and budget committees. In both hospitals the nurse managers all nurse managers regularly meet as a group where they are updated by

administrators and other managers on the latest policy changes, accreditation requirements, budget updates, etc.

Managers report to a departmental director of nursing. Both hospitals have a number of directors who cover all the care areas of the hospital. The care units that fall under the control of a director are called a "section" or "cluster," for example, all the ICU's belong to a section/cluster. In both hospitals in this study, the neurology floors and the rehabilitation units belong to the same sections with the managers reporting to the same director. The directors meet with the managers and other nursing leadership such as the clinical nurse specialist and nurse educator every few weeks to discuss the latest projects and ensure that all the units are on the same page and are moving in the same direction.

The directors, in their turn, meet with each other and their superior, the Chief Nursing Officer (CNO) every few weeks. This meeting is the highest level decision making body within the nursing department. The CNO represents nursing at the highest levels of hospital administration. In contrast to physicians, where their leaders are selected by their peers, the CNO is hired by the hospital administration. It is at this highest level that the day-to-day operational decisions such as budgetary decisions are made. Beyond this level of decision-making, decisions are made by top hospital administrators, physician leaders and ultimately the "Board of Governors". This board is a group of people who have the ultimate responsibility for the hospital or health-care system. The members are typically not employed by the organization but members of the

community at large and are people who are well regarded as leaders in their field for example bankers, church leaders, university professors. Typically a number of the members have strong ties to other major companies or groups. It this highest level that needs to approve the hospital's institutional priorities and goals. This is the reporting structure above the nursing units.

At the level of the nursing units the work that RN's and NA's are responsible for performing are outlined in their job descriptions, as it is for all employees. The job description not only guides caregivers' (and all other employees') actions, it also serves as a interface between professional standards of practice (for RN's), regulatory requirements, and the organizational mission, goals and objectives and the policies through which they are implemented. The caregivers are familiarized with the job description and key policies at the start of their employment during orientation. Orientation varies from two weeks for nursing assistants to over three month for newly graduated RN's. During orientation, caregivers are also trained in routines that make up day to day work. These include things such completing time-cards and documenting on patient records. In both of the hospitals, a half day of orientation is dedicated to using lifting equipment and familiarizing nurses with the safe patient handling policy. Nurses are also shown how to find policies on the hospitals' intranet. After nurses have completed their orientation they are mandated to go through annual educational sessions referred to as "competencies". Competencies mainly consist of education required by legislative or accreditation agencies. For instance, there is typically education on certain safety related

issues (e.g. bio-terrorism, handling of hazardous materials, different types of hospital codes such as cardiac arrest code, tornado watch, and in recent year's patient handling). In both sites these competencies are offered in the form of a half day class and computer based modules. Caregivers are required to complete these modules to remain employed and records are kept to track compliance. When accrediting organizations audit the hospitals they may request proof that all staff members have completed their competencies before accrediting the hospital.

Annually all caregivers are evaluated by their manager. Prior to the evaluation the manager, two to three co-workers (peer evaluations) and the caregiver (self evaluation) fill out forms (either in the computer or on paper). During the evaluation the manager and caregiver review the care-giver's performance of the last year and set goals over the next year. The outcome of the evaluation is determined by the manager, who takes into account the peer and care-giver's self evaluation. If there are concerns regarding the care-giver's evaluation the nurse manager can instigate a performance improvement plan. This is an official human resources form on which the problems are described and a plan is outlined as to what is expected of the caregiver in order to meet employment requirements. If an employee does not meet the goals set in the plan, their employment can be terminated. If the caregivers are covered under a labor contract, the union is involved in this process.

Caregivers start their shift by obtaining a list of the patients they will be caring for during their shift. On the units where this study occurred, this was either a printout of a

computerized patient list where the charge nurse penciled in the names of the caregivers or a large grease board with the rooms and names of the patients along with names of the assigned RN and NA taking care of that patient. Assignments were made by the charge nurse who took into consideration previous assignments (by looking back at old assignment sheets) for purposes of continuity, the primary nurse assigned to the patient (listed on the grease board), and other miscellaneous issues such as if a nurse was orienting a new employee who needed experience taking care of a certain kind of patient.

The caregivers would record the names of the patients assigned to them onto a sheet to take notes about each patient. Several of the caregivers referred to this sheet as "their brains". In one of the hospitals, all caregivers would then sign into a computer and obtain specific patient information that they needed to take care of their patients. In the other hospital only the RNs were able to check the electronic chart for information. The NAs received a preprinted sheet (fig 7-14) with tasks written on it that they were expected to complete since they did not have access to the electronic chart. The rationale given for restricting NAs' access to the electronic medical record was that the risk of misusing information from the electronic record (e.g. violating confidentiality) was larger than the benefit of giving NAs access to the electronic record.

In summary, nurses are highly dependent on the team structure in which they work. It is in this structure that they receive the knowledge not only about patient-specific issues but more importantly the means by which institutional priorities are conveyed and

reinforced to the caregivers. As mentioned above, these institutional priorities are communicated to the caregiver in the form of policies, the job description, orientation and staff development education, the patient record and other texts that they encounter in everyday practice. The job description and the accompanying evaluation forms are the main mediating texts that function as the interface between the institutional priorities, legislation, and accreditation requirements ("Boss Texts") and the everyday work performed by caregivers.

The Structures that Govern the Patient

For patients the organizational structure looks different from that of the caregivers. Patients are the "customers" of the hospital, thus their rights and responsibilities are very different than that of the caregivers. The following paragraphs will describe how care is structured and coordinated from a patients perspective. First, there will be a discussion of the different disciplines that are involved in providing care followed by a discussion of the patient admission process.

The Patient Bill of Rights is another "Boss Text". It is the primary document that outlines the relationship between the patient and the hospital which is actually mediated by the process of caregivers and thus involves caregivers. Some key rights that patients have in this Bill of Rights is knowledge of what the treatment plan is, a right to change health-care providers and the right to be cared for by the caregivers. The person primarily responsible for the patient in the hospital is the patients primary physician. In collaboration with other health-care professions such as nursing, physical therapists, and

other consulted physicians, a plan of care is developed. The primary physician directs the plan by writing orders to bring the patient plan of care into action. Examples of orders include medications, procedures, and treatments which are then implemented by the other team members of the multi-disciplinary team. If a patient is dissatisfied with their care they can file a complaint with the "patient relations" department of the hospital. This department will follow up on the concern and try to find an agreeable solution. Because the structure holds managers responsible for problems on their unit, the patient representative will involve the manager. If the patient chooses to go beyond the institution they can also file a complaint with the health department. The health department will instigate and if there are questions regarding the practice of any of the licensed practitioners they will be referred to the respective professional board. In this case the hospital's and the patients attorneys try to come to a resolution. If that is not possible, they will argue their case in a court of law. Even though a lawsuit might focus on a specific complaint such as the delivered nursing care, typically it is the hospital who is taken to court. In nearly all of these cases, the patient is requesting monetary compensation, thus exposing the hospital to a risk of financial loss.

Patients come to the units in different ways. On the neurology units the patients are admitted with acute medical problems such as new strokes, brain tumors, acute delirium caused by a neurological condition. There are different ways by which they are admitted to the unit: 1. Via the Emergency Room, 2. Transferred from an intensive care unit, 3. Directly admitted from a long-term care facility, 4. Directly from a physician office or

clinic. Because of the acuity of the illness many patients have family members staying with them throughout large parts of the day. Patients are admitted for an average of 5 days. Upon discharge, patients returned home, to a long-term care facility or to the rehabilitation unit. In some cases the patients' condition deteriorated during the admission and they were transferred to the neurology intensive care. After being stabilized they could return back to the neurology unit. When there are open beds on the neurology unit and patients with non-neurological conditions need a bed, they can be admitted to the neurology floor as a "overflow" patient.

The requirement for a patient to be admitted to the rehabilitation unit was markedly different than that for the neurology floor. To be admitted to the rehabilitation unit, patients need to be actively involved. They need to have clear treatment goals and be able to participate in therapy for 3–4 hours a day. If they are not able to be engaged in therapy they are rarely admitted to the rehabilitation unit. In years past patients would consistently be on rehabilitation units for many months and sometimes years. Now because of cost the average length of stay has decreased to 2–3 weeks. Some patients require extensive rehabilitation such as new paraplegics. Their treatment is split into two phases (admissions). In phase one the patient learns how to perform basic tasks again, e.g. get into a wheelchair. After this they are discharged to a place (home or long-term care facility) where they can learn how to implement those techniques. After several months the patient gets readmitted for phase two, which focuses on maximizing independence of functions. A significant number of the patients on the rehabilitation unit

were previously admitted to a neurology unit. An important difference between the treatment that occurs on the rehabilitation unit versus the neurology unit is the highly structured, goal-driven program. On both rehabilitation units the nurses would ask their patients what their daily goals were. Asking this question and documenting what had been asked has become a requirement for reimbursement and accreditation in recent years. During internal chart audits, finding evidence of goal setting had become an important part of the review process. Because patients can rarely pay for their own treatment, the payers (typically private insurance companies and Medicare) increasingly influence the treatment regime by setting the criteria they used to determine if a unit gets reimbursed.

On a typical day and evening shifts, every nurse is assigned three to four patients and the figures double on the night shift to six to eight patients. The nursing assistants are either assigned to a single high-risk patient, e.g., highly confused and at risk of falling or to a group of around 10–12 patients. These patient-to-nurse ratios were about the same on all 4 units even though the numbers were determined in different ways. In one hospital the number of assigned patients was determined using an acuity system in which each nurse rated the cares that their patient needed and in the other hospital a matrix was used.

From a patients' perspective the hospital structure looks very different from that of the caregiver. First and foremost it is the patients' own personal well-being, health and recovery that is at stake when they come to the hospital. In the current health-care

environment where patients pay thousands of dollars a day to be in the hospital, they expect to be treated accordingly. When you compare the patients' perspective with that of the caregiver, especially when it comes to patient handling, they have very different issues at stake. For the patient it is his/her physical well-being, whereas for the caregiver, it is maneuvering through a network of policies and guidelines that treat patients as "averages" whereas, in reality they apply to unique people in real time and space. Because caregivers are subject to various institutional structures, they have an incentive to following the guidelines. However, the institutional structure often results in a conflict for caregivers. This conflict is revealed between the policies prescribing how work is to be done and the demands of the context of individual patients'. If a patient does not want to be moved in an electric lift for reasons of fear, increasing pain, and/or personal dignity, the caregiver may be compelled to do so regardless of the patients request because of policies requiring the caregiver to use equipment. If the caregiver does not follow the lifting guidelines he/she can be reprimanded by their manager, yet if they follow the policy/guideline and don't listen to the patient, they subject themselves to the risk of having a complaint filed against them or more extreme, having their license being challenged. This situation is the direct consequence of institutions looking at patient safety and caregiver safety as two separate issues, whereas in reality they are inseparable. One of the patient handling policies specifically states that manual patient handling should only occur in life threatening situations. This view illustrates a blindness toward patients' perceptions of their needs and minimizes the rights they have which are

set forth in the Patient Bill of Rights. Such situations raise some fundamental ethical and human rights question for the caregivers. Is it justified to knowingly subject a patient to suffering in order to prevent a potential injury? If a patient does not want to be lifted because of fear being in a lift, does this actual fear count less than a potential injury of the caregiver? The current policy and guideline driven environment has created this situation as it has made invisible a key component of interpersonal contact, namely negotiating and being able to make a decision based on the complexity and uniqueness of the situation.

The Safe Patient Handling Program

On May 25th, 2007 the Governor of Minnesota, Tim Pawlenty, signed the "Safe Patient Handling Act" into law. This law (Minnesota Statutes 182.6551 – 182.6553) was passed in part because of lobbying and support from the nursing labor union and the equipment companies. It required health care institutions to implement a "Safe Patient Handling Policy" by July 2008 and to develop a plan to minimize the number of manual lifts by January 1st, 2011, by replacing manual lifting with patient handling equipment. The law also designated half a million dollars of the state's budget to providing grants to health care institutions to procure equipment. All licensed health-care institutions in the state of Minnesota will be required to establish a "Safe Patient Handling Committee" in which at least half of the committee members work in non-managerial roles. The main responsibilities of these committees are:

- Determine the hazards in the work place
- Acquire safe patient handling equipment

- Offer initial and ongoing training on the use of equipment
- Monitor and evaluate the effectiveness of the safe patient handling program

An important goal of hospitals is financial solvency. This goal aligns well with the Safe Patient Handlings Law intention to decrease occupational injuries. Advocates of safe patient handling legislation and programs have highlighted the financial benefits of not having staff injuries and described how the costs associated with purchasing equipment will be small compared to the savings because of fewer workers' compensation claims (Siddharthan, Nelson, & Weisenborn, 2005; Silverstein & Howard, January 2006).

Both hospitals in which this study was performed had already made efforts to initiate safe patient handling prior to the passing of the "Safe Patient Handling Law" and had institutional committees looking at safe patient handling issues. The committee members consisted of one or more ergononomists, managers, equipment procurement experts and bed-side staff. These committees predominantly focused on procuring additional equipment and ensuring caregivers were able to use them. In one hospital, some of the committee members served as "lifting coaches". These coaches were staff nurses who would then go back to their patient care unit and where injuries had recently occurred. They worked with their colleagues on replacing manual lifting with the use of equipment. The committee also had crucial roles in developing guidelines and education for how staff should transfer patients. A frequent tool used for this is the patient handling algorithms developed by Audrey Nelson and the VA Safety Center. In

both study hospitals copies of the algorithms had been integrated into the educational materials, policies and practice guidelines. These respective hospital committees were seen as the main resources for determining how the electronic documentation system reflected both how a patient should be handled and how transfers are documented. As both hospitals had electronic patient records, all the forms in the record were managed centrally. What this meant in practice was that if a change was made in the documentation system it was automatically implemented in all the areas of care. The result is that there is no allowance for the particularity of context and circumstance thereby further eroding a caregiver's ability to exercise discretionary judgment. Finally, these committees were responsible for developing the initial education on patient handling, which was done in the form of videos accompanied by written material.

The units on which this study was performed had both managerial and caregiver representation on the safe patient handling committees. As members of the institutional-wide safe patient handling committee they assumed responsibility for promoting and implementing the safe patient handling policy/guideline on their respective units. Some of the strategies implemented by committee members included education at team meetings, posting injury data in team rooms, creating posters and other reminders for caregivers such as signs on the doors of rooms with lifting equipment that stated, "This in a no manual lift room" or little business-like cards with, "You are busted" printed on it which caregivers could give to a peer "in jest" when they didn't use equipment or violated other guidelines such as not washing their hands.

When encountering a "no manual lifting sign" or receiving a "You're Busted" card it is not evident to the caregiver that this is just the final result of a complex network of governmental and institutional priorities. There is a financial benefit to all the major stakeholders of the Minnesota Safe Patient Handling law. The hospitals and state save money by paying less in the form of disability and workers compensation and equipment companies get large equipment sales hardwired into the law. To better understand the legislation, one should look not only at what is written, but what has been omitted or in other words is invisible. Three key elements that have not taken into account in the Safe Patient Handling Law are:

First, patients' individual needs are not considered. In the law, patients are not considered as unique individuals, but represented as uniform objects that need to be handled as efficiently as possible. The Safe Patient Handling Law represents the moving and lifting of patients as an abstract task and does not take into consideration the variances that are encountered when working with real people in real time and space. This becomes evident when reading the definition of “safe patient handling” in the MN law:

> "*Safe patient handling" means a process, based on scientific evidence in causes of injuries that uses safe patient handling equipment rather than people to transfer, move, and reposition patients in all health care facilities to reduce workplace injuries. This process also reduced the risk of injury to patients.*

Second, care as it presents itself in the everyday. The safe patient handling law gives no consideration to the unique situations encountered by caregivers and the context within which caregivers perform their every day practice. Moving patients occurs within a dynamic context in which caregivers have different levels of experience, skill. In this context they encounter individual patient preferences and conditions.

Third, other regulations and professional standards to which caregivers are simultaneously held accountable such as the Patient Bill of Rights, patient safety initiatives, professional codes of ethics, etc.

The institutional outcome measures by which the success of safe patient handling programs are financially based, e.g., the number of lost days of work or the amount spent in medical expenses related to injuries encourages an environment of blame. The logic of an environment of blame works like this: "If the costs of compensation and injuries don't decrease, that must mean that caregivers are not complying with the new guidelines." In the researcher's discussions with managers, occupational health nurses, hospital safety officers, and members of the safe patient handling committees, regarding the causes of staff injuries, he received one consistent answer, namely, "The problem is that the caregivers are not following the guidelines". Not once was the question posed whether the problem lay with the guidelines rather than with the individual caregivers.

This study, like Dorothy E. Smiths work (1997, 2003) confirmed that people in the everyday world are unaware of how institutional structures drive their everyday work. In

this study, the caregivers who participated in the safe patient handling committees were typically not aware of the underlying goals and consequences of these institutional structures. In this way, they unintentionally become instrumental agents for implementation of institutional priorities rather than representatives of caregivers and patients. A nurse working for the safety department said the following, "I get so frustrated with the nurses who just refuse to use the equipment. Why should we all pay for the consequences of nurses refusing to follow policies . . . I believe that if we want to make a change, we must reinforce the policy like any other . . ." By this she meant that the caregivers actions were the primary source of the problem, and not the institutional structure. The inability to see the role of institutional structures renders the complexity of day to day work invisible. If the role of the institutional structure is not considered in patient handling, this can only lead to the belief that the caregiver is the primary cause of their injuries.

CHAPTER 7

The Everyday Handling of Patients

Caregivers deliver patient care in a hospital at all times of day, 365 days a year. Because patients are present on the unit 24 hours a day and caregivers typically work 8 or 12 hour shifts, patients encounter multiple caregivers. To ensure that patients receive consistent care and that their treatment plans are followed, caregivers enter the work environment which is characterized by structured routines with rules and regulations presented to them in the form of policy and guideline books.

This chapter describes the work of caregivers during their shift and the policies/ guidelines they encountered which impacted their practice of handling patients. This chapter will describe caregiver practice beginning with 1) a description of how caregivers obtain the knowledge they need to handle the patients encountered during their shift, 2) what occurs once the caregiver encounters the patient, 3) their decision-making process used to determine how to transfer a patient, 4) how the transfers are brought into action, and 5) how this care is then documented and reflected in the patients record. This process repeats itself shift after shift regardless of the time of day or day of the week (Fig. 7.1).

Obtaining the Knowledge to Handle Patients

Knowing how to transfer, lift or handle a patient is essential for all caregivers. Caregivers obtain this knowledge in different ways. First, it is provided to them in a general form as part of their education during their orientation, as part of annual competency updates and through in-services. Second, caregivers get the information from

their colleagues in the form of shift report or verbal communication and, finally and most importantly, caregivers know how to handle patients through their experience in having worked with the patient or with similar patients in the past.

Institutional Education in the form of classes, online modules and manuals is an important source of knowledge for caregivers that occurs during employee hire orientation, annual competency reviews and in-service training. Institutional education focuses on the concepts underlying patient handling and techniques that are applied to populations of patients rather than individual patients. This education is developed by educators and is primarily based on textbook knowledge (see Fig 7.2) and thus don't take into consideration the individual needs of patients nor the uniqueness of the situations in which caregivers practice. The educational requirements of the Minnesota "Safe Patient Handling Act of 2007" (see Fig 7.3) not only outlines the educational material but also provides it to healthcare organizations, as the material deals with promoting standard practices rather than individual practices. Patients are depicted as objects that can be moved and handled in a consistent manner (the illustration accompanying the text describing how a caregiver should lift shows a person picking up a box, portraying the impression that patient handling can be compared to lifting inanimate objects (see Fig. 7.4).

Orientation is the foundation of caregivers' institutional education into their new work environment. At both of the hospitals where observations were performed for this research, all new caregivers start their employment by attending a two to 14

week orientation program. The variance in the length of orientation depends on the job functions (NA or RN), familiarity with the hospital, and experience as a caregiver. The orientation programs at both hospitals are similar. The orientation program starts with general institutional and employment-related topics such as philosophy, mission and values, organizational strategy (see Fig. 7.5) policies and procedures such as timekeeping and parking, steps to take in case of emergencies, mutual respect policies, etc. (Fig 7.6). The orientation programs consist of both classroom instruction and clinical orientation on the assigned unit with a preceptor. Both institutions had a half day class designated to teach the newly employed caregivers how to handle patients using equipment. During the first part of these classes the new caregivers are presented an institutional overview on how to handle patients (explanations about procuring equipment and using the algorithms described within the guidelines/policy) followed by a video that each of the hospitals had developed to describe patient handling. Both videos emphasized the need to avoid manually lifting patients whenever possible. The second half of the class consists of hands-on experiences using patient transfer equipment and mechanical lifts. Not only do the caregivers get to use the equipment they also experience being transferred in the equipment by their peers attending the class.

The knowledge presented in institutional education is not relevant to the realities of the everyday work. Sally, RN reflects on her orientation:

When I got hired as a nurse I received [patient handling]

training during orientation. On the unit we also have videos if you need them. The training was hands-on and lasted about half a day. They showed us several types of lifts. We also practiced how to get people who were on the floor up using equipment. The training was hands on, and we actually had participants lay in a bed to be lifted. I would say I probably can apply the knowledge I received about 75% of the time. There are still situations like when the lift batteries go dead that I have to resort to thinking through how the patient should be handled. Also we don't have four people available all of the time, like during the training. During this shift my aide and I went into room B to give the patient a boost up in bed while there were only two of us. During the training there were always four people. You are never going to find four people for routine care. When you do get four people it is only when the patient needs total assistance . . . and even then you cannot always get four people. Asking four people to lift takes too much time, whereas I could be in and out with my aide in two seconds instead of walking around looking for two more people. It is just not time efficient to go find other people.

After observing Bill NA, who went through orientation about a year ago, he explains, "I was taught things like lifting up the bed, having enough people . . . 'So make sure you have enough people because exerting yourself too much is bad for you and the patient'."

Although the institutional education teaches caregivers to lift patients using four caregivers, in reality these people are frequently not available because of staffing limitations. When considering the organizational strategy (Fig. 7.5), it is understandable that if a hospital wants to remain financially solvent, they cannot ensure four people are available for each transfer. Importantly not only is staff safety a priority, but the financial health of the organization is as well. The financial health of institutions, which is measured on a continuous basis likely outweighs the requirement for safe patient handling with four caregivers. This priority becomes evident when seeing the institutional "score card" and seeing what gets measured and what doesn't. In this case, the finances were highlighted but the number of injuries was not reflected.

For caregivers who are not new to the organization, institutional education is presented to them during special educational sessions and annual "competencies". When the ceiling lifts were installed, the caregivers received on unit training on their use. Training was given to all staff by representatives of the companies who had sold the equipment to the hospitals. The representatives came to the units and instructed the caregivers using the actual equipment. During these trainings, caregivers both practiced using the lifts and were offered the opportunity to be lifted themselves. After completing this training, caregivers had to sign-off that they had attended the training and confirm their understanding of how and when to use the equipment. As Beth RN recalled, "I had an in-service here as part of the implementation

of the new equipment. I actually had to get into the lift to experience it myself. Now I know what it feels like for the patients."

The annual competencies are another important part of the institutional education process. During competencies, hospitals can group together all the information and training they need to give their employees. At this time most of this education is driven by new regulations issued by extra-local organizations such as the Joint Commission for Accreditation of Health Care Organizations (JCAHO), the Health Department, etc. (Fig. 7.7). In regard to patient handling, this content is integrated in the (mandatory) Employee Right to Know (ERKT) Education (see Fig. 7.8). The education describes the policies and explains how nurses should lift patients based on the requirements set forth in the Minnesota "Safe Patient Handling Act of 2007" (Fig. 7.3).

In addition to institutional education, caregivers also obtain knowledge in how to handle their patients based on information from their colleagues. Historically nurses would come together at the beginning of the shift and the charge nurse would give all the nurses "report". In recent years this has changed from nurses verbally reporting to each other to tape recorded reports and now the shift report is computerized, in many places. This was the case in the study sites.

After Sharon RN arrived on the nightshift on the rehabilitation unit, she went to a computer and obtained report, an unofficial part of a patient's record. She then looked through the nurse-to-nurse communication sheet and the flow sheets for information on handling patients. How the patients should be moved was described in cryptic

descriptions such as "up ad lib", meaning the patient can get up by him/herself, or "s/p", stand and pivot, meaning the patient can stand with the help of a caregiver with a transfer belt and then pivot on his feet to another surface (bed, chair, commode, etc.). Next, Sharon looked at the flow sheets. Most patients had multiple flow sheets that reflect the different areas in which they need care and are being monitored, for example, pain assessments, IVs, respiratory assessment, treatment, etc. One of the components was mobility. In this section, the Sharon saw how and when her patients were last moved. This typically refers only to the last "formal" transfer such as when the previous caregiver helped a patient into a chair and not the more typical patient handling such as when a patient asks for help to sit up in bed or to have a limb repositioned. The next sheet Sharon looked at contained a narrative note which the previous nurse had written describing the care given to the patient that was not captured in the flow sheet. Per hospital policy the narrative notes were written in the "DIAP" format (Diagnosis, Intervention, Assessment and Plan). Sharon also explained that on the rehabilitation unit, the nurses can look at "FIM scores" (Functional Independence Measures). These scores are documentation requirements for Medicare and Medicaid that reflect the patient's level of dependence or independence. After reviewing all these flow sheets, Sharon found the nurse who was leaving and got a brief report. The verbal exchange only took a few minutes in which the off-going nurse explained one patient's medication schedule. After this, Sharon grabbed a brightly colored sheet on which she made a few notes for the

NA and left it on the desk of the nurses' station to go into the medication room to get a medication.

On a neurology floor, Beth RN elaborated as she was getting a report from the computer, "The report is typed out. Report usually covers all of the body systems. It is basically your assessment on your shift. Anything new or changed you should document. It is not a part of the official chart; it is just documentations by the staff."

The only times I saw nurses receiving a full verbal report was when they received a patient from the Emergency Room, Operation Room, or from a different unit. This happened when Percy RN received a call from an ER nurse to explain the condition of a stroke patient he was going to receive. The nurse in the ER explained to Percy the patient's condition and how the patient was coping with the situation prior to being transferred. This allowed Percy to construct a picture of the patient and based on that make preparations for the patient's arrival, including making sure a sling for the patient lift was available.

The process of obtaining knowledge for NAs is a much briefer process. The NA has a form (Fig 7.14) on which data could be entered. Typically the RN, on either the previous shift or the current shift filled in the information, including a box for mobility. Minnesota statutes require that nurses delegate tasks to NAs in a clear manner. To comply with this requirement the nurses used this form. In one of the hospitals, the NAs could look into the patients' electronic charts for additional key information such as their diagnoses, etc. They would usually be able to pull up all the information they needed in a

few minutes. In the other hospital the nursing assistants did not have access to the electronic record. A decision had been made by the hospital administration in collaboration with the risk management department that NAs would not receive access to the record because of the risk that patient confidentiality would be breached. In recent years all healthcare organizations have been required to protect patient confidentiality by implementing the "Health Information Privacy Protection Act" (HIPPA). The Act requires hefty fines to be paid by hospitals that violate the guidelines of the Act, and the hospital deemed their risk as being too high if they gave all NAs access to the electronic medical record.

Nursing Assistants rely on the RNs to receive report and information on their patients whether or not they have access to the electronic medical record. Because of the high workload on the units, the report to the NAs was not always given on a consistent basis. As Bill NA described, "Sometimes they (RNs) write it on the sheet that Patients need to be moved every so often. Sometimes they will just be in there giving them meds or checking up on them and the patient will say that they want to be turned."

The information that the NAs received was typically limited to how often and when patients should be handled with an occasional direction such as "stand and pivot".

During this study it became evident that caregivers rely heavily on their **previous experiences** with patients when determining how to handle them. This knowledge allows caregivers to provide the specific care needed for each unique patient. In many cases, the guidelines given in educational sessions and manuals do not make allowances for the

individual issues encountered in many situations. As Sally RN explains when taking care of an elderly patient who appears unstable when getting up:

> *"I knew a little bit about the patient because I had taken care of her before. I knew she did fairly well independently because of my prior knowledge about her and I was not concerned about her abnormal gait. She had been mobilizing independent with family."*

When caregivers have been off a few days or when they float to another floor where they don't know the patients they perceive that as being stressful. As Sally RN stated,

> *The only time that I have gotten injured was when I had to float to another floor, I didn't know the patient and they didn't have the equipment that I was used to. When I came back that night my back was just killing me.*

Bob RN agrees when he says that when he works with a float NA the only knowledge the aid has is the official training received during orientation which isn't specific to the patient. He continues to explain that when taking care of specific patients, "He [the NA] would not know how to handle or move the patient until he gets report from me."

Later that week I was observing Patricia RN help an elderly female patient who weighed about 200 lbs from her bed to a chair using the ceiling lift. Patricia RN explained why she used the lift:

> *I tried it yesterday with just me and the nursing assistant without the*

lift. Sometimes they are able to have enough strength to help us with the good side. So yesterday I had her and I tried it with just me and the nursing assistant and we got her into the chair. It was a heavy lift!

Based on her experience the day before, Patricia RN made the decision that moving the patient with a ceiling lift would be the safest for them and also in the best interest of the patient.

Caregivers also base how they handle patients on previous experiences with similar patients and how their own bodies respond to certain transfers. Anna RN explains how she knows a lift is "heavy,"

To me a heavy lift is back breaking. If it makes me uneasy then it's a heavy lift. That patient I lifted earlier took way more than I thought it was going to because he is strong. But in contrast to what I expected he did not assist us at all. To me he is a total assist.

Based on Anna RN's past experiences, the patient's condition did not indicate that he would be a high risk transfer, yet based on her experience transferring him, she adjusted her assessment of how he should be transferred in the future.

Susan RN just transferred a 230 lb gentleman on the rehabilitation unit, using a transfer belt. She had put a gait belt around his waist prior to doing so. Susan RN commented,

I put on the belt to have something to grab on to. That is the only reason. It does not help you at holding them. We can only hold underneath

the armpits on a patient so there is no other place to hold on then. So the T-belt gives you some place to hold. If he were to fall it would happen regardless of the T-belt. I am not going to be able to hold up a two hundred pound person. So he would go down, but he would go down lighter.

Tom RN transferred a stroke patient from the wheelchair to her bed on the rehabilitation unit. Mobilizing her this way was a part of her rehabilitation program, but because of fatigue she had a hard time maintaining her balance. Tom RN explains,

If she would have started to fall I would have grabbed behind her and guided her into a sit position. I would have moved down on my knee and had her to sit on my knee and by grabbing her from behind prevented a fall. Then I would have called for help. I know this through experience. As long as patients don't hit the floor or hit their head. We have had people just faint and fall backwards. That is why when I walk with a patient, I have my hand on their back while I am talking to them. If I notice the patient is getting queasy, then I just get down behind them and get ready for the sit. I have had probably five people where I have used the sit thing which has prevented them from falling. They just sat on my knee. It is not very comfortable for either of us but it gets them stable enough to not fall and it gives me the opportunity to call for help. Then two people will come and we will get the patient off the ground.

Caregivers also use *each other as sources of knowledge*. The NAs received most of their patient specific knowledge from the RNs, mainly because of the limited access they had to the electronic patient record and the limited time they had to obtain all the information they needed in the beginning of the shift. The NAs have an important role in answering call lights while the RNs receive and give report. The RNs used each other and the physical therapists as resources. In several situations the nurses would take time to observe a physical therapist (PT) when they mobilized patients. Because PTs only worked during the day hours, the nurses used each other as resources during the other hours of the day, or when a PT was not available.

When caregivers perform their work on the unit they encounter *Local Institutional Texts*. The most frequent source of information was found in the form of small grease boards that were hanging by patients' beds. David RN walked into a patient room explaining, “If I don’t know how I should move a patient, it will be on the board.” On the board would be written the instructions which were in the nurse-to-nurse communication sheet in the electronic patient record, (for example, up ad lib, stand and pivot). On one of the units, as a part of the safe patient handling program, several doors had signs posted which read: “This is a zero lift room”. Lucy RN told me that this meant that the ceiling lift was to be used for all transfers. When she entered the room she encountered the following situation: Rick, a 48 year old patient with a cervical fracture, was sitting on a chair and wanted to go to bed. He needed to keep his neck brace on while going to bed. Rick also was using oxygen. Lucy RN helped Rick stand and pivot over to the bed to sit

him down. With one arm under his brace and another guiding his legs, Lucy RN helped Rick into bed; she turned on the bed alarm as soon as he was in bed. Rick ended up in bed too low, so Lucy helped him get up higher in bed. She asked him to lift up his knees and put her hand under his shoulder. On the count of "three" Rick pushed up while Lucy pulled and guided him up. The discrepancy between the message on the door and how Rick was actually transferred was evident. Lucy RN explained,

> *For most patients, the goal is to get them to the most independent position that they can be in to take care of themselves. We are working towards independence. Usually the PTs are the people that show a different way of transferring so if that's what they do, that is what we will do.*

This example made it evident that the knowledge of the patient's goals and abilities outweighed an abstract directive that did not take these into account when handling a patient. The "zero lifting sign" was not applicable to the actual situation that occurred.

Other Local Institutional Texts include instruction manuals which are either located on the units or on the institution's intranet. When the researcher talked to the managers he was shown some paper manuals and intranet sites which had been developed as resources for patient lifting. The manuals mainly contained information from the lift companies regarding the use and maintenance of equipment. The caregivers I observed either had no knowledge of the existence of these resources or did not use them. As Mary RN explained, "They have books up there for everything". When the researcher asked how often she used the books, Mary responded, "The book? I have never used it".

A problem expressed by caregivers in one of the hospitals was the difficulty finding the policies online. The researcher attempted to find the safe patient handling policy using several search terms such as "safe patient handling", "lifting", and "patient handling" but was not able to locate the policy (Fig. 7.14).

In summary, caregivers received the knowledge they needed for handling patients from four different sources. The most important source was their previous experiences with the patient and knowing the specific needs of that patient. The second most important knowledge was caregivers' previous experiences with specific populations of patients. Certain methods and strategies work better with patients with certain conditions such as obesity or stroke. This knowledge can be used when working with patients with similar conditions. Third, caregivers also rely heavily on the knowledge of their peers' experiences and explaining the specifics of how their assigned patients should be handled. This occurs when caregivers give each other report at the change of shift and through individualized notes made on grease boards located at the patient's bedside. Fourth, and least important, caregivers obtained knowledge on how to handle patients during classes and on online web modules. These classes are based on standardized approaches of patient handling such as algorithms developed by the VA Safety Center. Reminders of this education can be found in the workplace in the form of signs found in the work area, such "this is a no lift zone".

For caregivers, knowing how to handle their patients requires getting to know the individual needs and characteristics of the patients either by getting to know the patient

personally or through communication from peers. However, this form of knowledge is invisible in the texts that regulate their practice. The Minnesota Safe Patient Handling Law considers "classroom" education as the primary source of knowledge for caregivers when handling patients. The law refers to "evidence-based" knowledge, referring to knowledge obtained in laboratory studies as described earlier in the literature review and in which patients are portrayed as if they were inanimate objects. Institutions justify implementing these programs because it promises to decrease costs for institutions, which fits well with the institutional objectives to stay financially solvent. Healthcare systems have made large investments installing equipment with expectations that the financial outcome will be balanced by a decreased cost for staffing injuries. However, in order to decrease the risk exposure to caregivers when handling patients, the "evidence-based knowledge and the use of equipment alone does not seem adequate. The "invisible" knowledge that caregivers rely on regarding the specific patient needs and unique care situations must be integrated into the solutions for decreasing risk exposure.

Patient Contact

After caregivers have received reports and looked up information in patient records they go and see their patients. When a caregiver enters a patient room they encounter a complex situation in which many forces are at work. Never are two situations exactly the same because both the people and the context of care delivery are constantly changing. The most important factor caregivers encounter is that patients are subjects, not objects: they have their own wishes and preferences as to how they want to be cared for.

Although the Safe Patient Handling Law and institutional policies/guidelines require caregivers to use equipment, this requirement is not uncontroversial in the everyday world of patient care. There are a multitude of reasons why patients request not to be moved in a lift, including patient preference, comfort, fear, and mental status.

Patient preference plays a key role in how care is delivered. For instance when Kelly RN walked into the room to do a routine check on Rachel, a 54 year old female admitted with encephalitis, she found an empty bed. There was a sign on Rachel's doorpost reminding caregivers that she was at a high fall risk. Kelly RN saw light coming from under the bathroom door. She knocked on the door, "Rachel, are you in there?" Rachel replied, "I'll be right out there". After a few seconds the door opened and Rachel came walking out without assistance. Kelly said, "Please call me when you need to get up, I am worried that you will fall." Rachel responded, "I know how busy you are and didn't want to bother you, I am very stable on my feet." Kelly RN walked back with Rachel to her bed. When she left the room she reminded Rachel again, "Please call me when you need to get up." Kelly RN encountered several things in this situation. First, she encountered a patient who was clearly able to make decisions and who felt confident that she could walk by herself. She had been placed on fall precautions because the hospital was trying to eliminate patient falls and had initiated a policy requiring a fall assessment tool be completed on all patients. According to this scale, Rachel was considered to be at a high fall risk. This initiative originated from the Joint Commission of Hospital Accreditation (JCAHO) when they implemented certain patient standards to

which hospitals were supposed to adhere. This initiative was supported by Medicare and Medicaid who have made the decision to no longer pay hospitals for any expenses that were incurred as a result of hospital falls. Kelly was required to follow safe patient handling policy that required her to use a mechanical lifting device when a patient was considered to be at a high risk of falling while concurrently respecting the wishes and rights of the patient. What should Kelly RN's actions be in such a situation?

1. Respect the patient's rights of being involved in her treatment as reflected in the Patient Bill of Rights (Fig. 7.9)
2. Follow the Patient Fall Prevention Guidelines and prohibit the patient from using the toilet, requiring a commode instead or activate an alarm on her bed? (The guidelines don't address situations in which a patient has no cognitive impairment but according to a rating scale is perceived at a high fall risk.) (Fig. 7.10)
3. Follow the Safe Patient Handling Guidelines and transfer this patient using a ceiling lift. Since Rachel was a high fall risk according to the rating scale, she was automatically considered a high risk transfer (Fig. 7.3)

This situation offers a challenging situation for the caregiver. Regardless of Kelly's decision, she will be out of compliance with one or more of the requirements demanded from her.

During patient contacts, caregivers encounter a variety of *mental and physical factors* impacting patient handling. It was 2:30 a.m.; Rick, an 82 year old retired

attorney, is agitated. He is upset that there are people coming in his room that he doesn't know and he doesn't know where his wife is. He wants to go to the bathroom again but thinks it is inappropriate that Lucy RN (his assigned RN) walk him to the bathroom. Rick says, "I don't know what place this is . . . but it isn't right. It just isn't right". He starts getting out of bed by himself. When Lucy RN tries to give him a hand, he pushes her away and says angrily, "I don't need help . . ." Lucy offers him a urinal and to stand with him, but he turns that proposal down. I want to go to the bathroom and I don't want you here!" Rick, frustrated that he is not left alone, decides to go back to bed. After 30 minutes, Lucy RN hears Rick calling his wife's name, "Beth, Beth . . ." Lucy RN comes in and says, "Beth is not here . . . she went home." He looks at Lucy RN and says sternly, "That is not true!" Rick has his feet out of the bed. Lucy RN offers to help him walk to the bathroom but he refuses. She re-offers him a urinal and he also refuses that again. Lucy calls an NA and they decide to help him out of bed. Each holding an arm, Rick reluctantly goes to the bathroom. He is unstable and needs the support offered to him. After he gets into the bathroom he sits on the toilet. He notices the O_2 tubing and the oxygen sensor attached to his finger and is distracted. Finally, Rick urinates 500 cc. The NA and Lucy RN help him back to bed. When they reach the bed, Rick tries to get in the bed on his knees. He starts tipping forward. Lucy RN and the NA hold him and pull him back out of bed. They then help position his buttocks so he sits on the edge of the bed. While Lucy RN holds his shoulders, the NA lifts his legs into bed. After about five minutes Rick is asleep.

In this example, the caregiver finds herself in a complicated situation. The patient is a well respected member of the community who has lost his understanding of what is happening. Lucy RN explained to me after this incident, "I knew his problem was that he had to go to the bathroom, but I just can't make him."

Even though Lucy RN knew what was causing the patient to be restless, there was no easy solution. Holding the patient down and catheterizing him to empty his bladder would have been in conflict with the Patient Bill of Rights. This also would have caused the patient trauma and exposed the caregiver to the risk of injury should Rick resist. Another option would have been to use the ceiling lift. Rick would have been strapped into a sling and while hanging in the air, been moved to the bathroom. This would have most likely led to emotional and possible physical trauma for Rick due to his mental status. Thus, what Lucy RN chose to do was to adjust her caring in a way that would diminish the chance of Rick escalating and getting injured. In doing so, however, she exposed herself to a higher risk of injury by helping him get to the bathroom manually, knowing that he needed physical assistance.

Patient *pain* is also a common issue that caregivers encountered while handling patients. Some patients experience discomfort even with the slightest movement or touch. One of the nurses explained that it was not poor pain management, but the difficulty between finding the balance in pain management and having the patient alert enough to be able to participate in their recovery process. Because opiates are the preferred manner that severe pain is managed in acute care, this issue is common.

When the level of narcotics is too high, the patient typically becomes over-sedated and less cognitively aware, whereas when they are too low, the patient is in excruciating pain. Amy RN explains after handling Barb, the patient in severe pain described in Chapter 5, that the problem she grappled with was to what extent the patient should be given pain medications, mainly because the patient was a full code,

> *Should I medicate Barb to the point that she is pain free when she is resting or should she be medicated to the point that she is pain free when she is turned? The latter requires much higher levels of sedation for which I have no orders because it could result in respiratory depression and over sedation.*

She went on to explain that using a lift to reposition Barb would cause much more discomfort because the movements aren't as sensitive as when doing it manually. It would also require Barb to be rolled back and forth in order to get a sling under her. Considering the discomfort caused by the minimal moving that occurred, Amy RN was moving the patient manually to ensure she was limiting pain as much as possible which is her responsibility under the institution's Pain Management Policy (Fig. 7.11). This policy was driven by the Governmental Agency for Clinical Practice and Research (AHCPR) guideline 95-0592 which focuses on pain management. This guideline is also a requirement set by JACHO for hospital accreditation.

In other situations caregivers ran into *physical limitations* of being able to use equipment. Caroline RN was taking care of a patient who had a double leg amputation.

When the patient had to be transferred from the bed into his wheelchair, Caroline RN and a colleague transferred him over by having him move to the side of the bed and then manually lifting him over using the sheet under him. Caroline RN explains that this is the only way it could be done because when they used the sling, he nearly fell out because the sling didn't have the counter-balance of his legs to make sure he was secure.

In a different scenario, Diana NA and a student help Adrian, a large man in his 40's, reposition. Above his bed is a sign that says, “No Bone Flap on Right". Adrian had undergone major brain surgery. Diana NA tells him, “Adrian, I am here to help you up in bed and turn you." Adrian slowly opens his eyes. He is unable to speak but indicated, by nodding, that he understands. Diana NA and the student take the draw sheet that is under Adrian and use it to turn him on his side as Diana NA carefully guides Adrian’s head to ensure it doesn't get exposed to trauma. Diana NA states, "I am afraid that when I use the sling, we will put pressure on his head and that could have a bad outcome for him".

Some patients have *barriers related to interacting or communicating* clearly with their caregivers even though they are conscious. This is typically because of impairments such as aphasia, blindness, and tracheostomies. This may inhibit the patient’s ability to communicate with their caregiver and/or interact with their surroundings, requiring the caregivers to interpret their patients’ needs. This became evident when observing the care of Patricia. Tina RN was walking down the hallway and saw the call light on in Patricia’s room. Patricia was a young woman whose body was deformed after she had encephalitis for which she had been in the ICU for many weeks and which left her unable to control

her body. Patricia was awake and looking around in the room, but because she had a tracheostomy, she could not speak. Tina RN and an NA turn Patricia from side to side to put a sling under her. After all the sling straps are attached, Tina RN pushes on a remote control attached to the lift and Patricia slowly rises in the air. She goes from a lying into a sitting position. Patricia is startled by the change of position and tries to hold on to the side of the sling. Because Patricia has lost the function in her hands, she can't hold on with the fingers, but she curls her elbow around the edge of the sling. Tina RN reassures her that she is safe and then lets Patricia down in a recliner that is standing next to the bed. Tina RN explains to Patricia that they need to pull her up in the chair. Tina RN and the NA pull Patricia up in the chair using a sheet that is behind her to position her correctly. Patricia grimaces and cries without making a sound. Tina RN puts her hand on her shoulder and tries to reassure Patricia, "You are okay, you're okay!" before leaving the room.

Environmental distractions are a part of the everyday practice of caregivers. It is 9 p.m. and Robin RN goes into Anthony's room to help him get ready for bed. Anthony is asleep. A nursing student is working with Anthony this evening and she joins Robin RN. The nurse wakes up Anthony to give him his medications. The student raises the head of the bed and Robin RN tries to give Anthony his medications. Anthony starts continually repeating, "I want to sleep! I want to sleep . . ." She gives Anthony his medications one by one. While she is doing this the communication device in her pocket is ringing. Because Anthony is in isolation and Robin RN is gowned and gloved she does not touch

her communication device. After the ringing stops for a few seconds, it starts up again. Robin RN is visibly distracted by the persistent ringing but continues to do her work pretending as if nothing is wrong.

Later that shift, another patient wants to get on the commode. He needs to have a neck brace on when getting up along with an oxygen canula. Robin RN helps the patient stand with one arm under his brace and another guiding his legs. The moment the patient gets up, the bed alarm produces a loud piercing sound. This startles both the patient and Robin RN. She guides the patient back on the side of the bed and turns off the bed alarm. They repeat the transfer without the distraction.

Both of the situations illustrate how distracters can expose caregivers to a higher risk of injury by decreasing their attention and/or by requiring the patient to be transferred differently. Both of the distractions in these incidents were a result of the institution's attempt to give caregivers tools to ensure they meet organizational goals. In the case of the communication devices, these are a result of trying to get caregivers to respond faster to patient needs. A fast response to call lights is an important factor in increasing patient satisfaction. In the case of the bed alarm, the objective is to decrease patient falls.

Time also plays a role in how caregivers perform their work. On one of the nightshifts, I observed Tim NA who is also going to nursing school. He is in is early twenties and appears in good shape. He is assigned to 12 patients and his primary task is to turn patients and change them if they are incontinent. This type of work has traditionally been an important part of care giving, but is even more so now that Medicare

and Medicaid have stopped paying hospitals for any pressure ulcers that patients develop while under the hospitals' care. Tim NAs experience is that it is most efficient to turn patients and change them when working in pairs. Thus, he partners with another NA who is working on the floor that night. His colleague has 11 patients assigned to him. Tim and his colleague work their way from one side of the unit to the other going from room to room, turning patient after patient. Eight of the patients are on contact isolation, meaning the caregivers have to put on gowns and gloves before entering the room. About a quarter of the patients checked needed some type of sheet or pad change. Although all of the rooms have ceiling lifts, they don't get used. When the researcher asks about this, Tim NA laughs and says,

> *"Where would we get the time? We can barely get it done this way. The lifts are only useful when doing a big lift, like getting a heavy patient from the bed into the chair." When asked what happens if you don't get all the work done, Tim responds, "The nurses get unhappy and you get called into the office or you hear about it on your evaluation". When asked about how the number of NAs that work each shift is determined, Tim explains, "The charge nurse has a grid and that tells her how many staff she can have every shift". Tim denies having a problem turning patients in this way, "If I have a good person to work with, I think it works pretty smooth . . . we just go down the hall and start over again".*

As reflected in this observation, there is a conflict between the hospital's objective to manage its budget, which is done by determining staffing (using staffing ratio's reflected in a grid), and the requirement that a caregiver use lifting equipment every time they lift or reposition a patient. In this situation, Tim NAs main objective was to get the work that was assigned to him done in a way that was satisfactory to the nurses. Not doing so could lead to trouble, something he preferred to avoid. It became clear how the job description and the evaluation process play a large role in the way Tim NA does his work. If Tim NA were to use the lifts and consequently not get all his assigned work done in a timely fashion, he fears getting negative feedback on his evaluation. Because he hopes to obtain a position as an RN after he graduates from nursing school, he wanted good evaluations.

In summary, caregivers encounter a variety of different situations and demands on them as they enter the patient's room. If patients only had a single problem that needed to be addressed (such as being moved from the bed to the chair as if a bag of cement), following the safe patient handling guidelines would be simple. However, in reality there are many factors involved such as patient preference, time pressures, and pain, all which the caregiver must take into account. All these additional factors are regulated by policies and procedures which are being driven by external forces such as regulations and legislation.

Making the Transfer Decision

After the caregiver has encountered the patient, a decision is made about how and when the patient is to be transferred. According to the safe patient education materials, this decision is to be made according to clearly defined algorithms by which the caregiver arrives at decision points based on yes and no questions. The reality of practice looked very different. When and how patients are handled is frequently unpredictable and presents itself in unexpected ways.

Transferring patients can be *unpredictable*. As the patient's condition is frequently changing, information that has been written down in the chart can quickly become outdated. Joan RN experiences this when she tries to help an obese patient with a stroke out of a chair and back into bed. Joan RN knows the patient well, as she has taken care of him several days in a row. At the beginning of the shift, she looks in the chart and it says "Stand and Pivot". When she goes into the room the grease board above the bed confirms this. When Joan RN tries to help the patient up, she has a hard time getting him up and when she finally does, he is unstable on his feet. Joan RN had put a gait belt around the patient's waist and ends up using a lot of energy to turn him toward the bed. Joan RN reflects on that transfer as being "heavy" and when she leaves the room she adds the words "assist with 2" on the board. Joan RN comments, "He must have been tired or something because he couldn't help anywhere close to what he usually does. If I would have known this I would never have helped him by myself."

On a different shift, Beth RN encounters the following *mechanical malfunction* which leads her to transfer the patient in a non-conventional way. Beth RN is helping Emma, an elderly patient, back into bed using the ceiling lift. When the patient is midair, hanging between the bed and chair, the lift stops working. Beth RN comments, "Looks like the battery isn't charged up!" and the pulls a red (emergency) cord on the lift. This allows the lift to move manually. Beth RN maneuvers Emma over the bed, and puts the bed into the highest position (to decrease the distance between the patient and the bed). She then lowers the patient down into bed manually.

That same shift Beth RN wants to help another patient by using the lift, but because of the *unavailability of equipment* opts to move him manually. As Beth RN comes into the room, the only sling that is present is a lying sling, which she deems inappropriate for the transfer. She goes to several supply areas to look for a sitting sling but without avail. After about 10 minutes of searching she locates an NA who assists her in moving the patient manually. Chris RN on a rehabilitation unit ran into a similar problem but made the decision not to manually lift the patient. He explained,

> *Depending on where I need to put the patient or how I need to move them, there are two slings. A sit sling puts them up in the chair. Then there is a flat sling that covers head to toe on the bed. That is for like a lateral transfer. You cannot use the long sling to move him into the chair or to put him into a wheelchair or to put him into the bathroom. That is just a lateral transfer and we have tons of those slings. The slip slings are super rare, for*

me to have one when you were there is super rare. I look at the nursing assistant and am like 'Oh no, we are going to have to do a total'. Let's go find a sling. That could take half an hour to forty five minutes. I have stolen them from other departments.

In other situations the *patient's request or preference* is what prompts the decision. Joanne RN is helping a larger gentleman walk down the hallway. She is holding him under his elbow because he doesn't have a gait belt on. Joanne RN states, "I know him from yesterday and he refused the T-belt yesterday–the transfer belt, which is the only thing that I would have used for him because it is something to hold on to." When asked why the patient had not wanted the transfer belt, Joanne responds, "He said it made him short of breath".

Assisting *peers* can be another determining factor in how a decision is made in handling a patient. As Kelly RN was documenting her assessment, a colleague comes up to her and asks if she could help her with a lift. The patient is Gloria, a new admission who is in her early 80's. Gloria had experienced weakness on one side of her body earlier that day. She is a large lady, although she is only 158 cm she weighs over 100 kg. The physician had gotten the patient to the side of the bed to assess her but when Gloria laid back down she was at the foot of the bed and was lying semi-across the bed. The colleague takes the draw sheet and says to Kelly, "Lets pull her up." The nurse asks Gloria to put her hands on her chest and then starts counting, "1, 2, 3 . . ." on three, Kelly RN and the nurse start pulling Gloria up. They only move up a few inches. The nurse

says, "Let's try that again . . . 1, 2, 3 . . ." This time Gloria moves up further. As Kelly RN leaves the room she hears, "Thanks!" When asked about the transfer by the researcher, Kelly RN reports that she would have not performed the transfer that same way, but because it wasn't her patient, she didn't say anything. "I don't want to rock the boat," she concluded.

Institutional requirements such as skin ulcer prevention programs are another source that influences when and how patients are handled. When Robin RN walks into Mia's room, she notices that there is a fall precaution sign on the door. On the grease board it says, "BR, Turn every 2 hrs, Comfort". Mia is in her late seventies and has recently had a subdural hemorrhage. The family had a meeting with the medical team focusing on the patient's comfort rather than pursuing a cure. Mia has her eyes closed and is breathing heavily. The pauses between her breaths are irregular. In her left hand Mia has an IV and on the other side of the bed is a Foley catheter. Robin RN pulls back the sheet and gives Mia a heparin shot in her abdomen. She then raises the bed to turn her on her side. Mia does not respond in any way. Robin RN takes the draw sheet and carefully pulls her onto her side. She puts pillows between her legs and behind her back and repositions the pillow under her head. Mia's breathing seems lighter now that she is on her side.

Many of the institutional requirements are a result of external pressures. For instance, in an effort to decrease costs of healthcare, Medicare and Medicaid Services have implemented new guidelines that would not reimburse hospitals for any conditions

deemed "preventable". These guidelines went into effect on October 1, 2008. Currently the Centers for Medicare and Medicaid are focusing on 10 preventable conditions including:

1. Falls and trauma
2. Vascular catheter associated infection
3. Stage three and four pressure ulcers
4. Manifestations of poor blood sugar control

As of October 1, 2008, Medicare patients that have one of the 10 conditions could be denied reimbursement for expenses associated with the condition. In other words, if a patient falls, any costs associated with the fall would not be covered. These would include such things as CT scans, extended admissions, need for rehabilitation, etc.

In recent years, high risk situations such as fall prevention initiatives from regulatory and accreditation agencies have led to a key priority within both of the hospitals to reduce the number of falls. The first institutional text where caregivers find an indication of this is with warning signs or patient bracelets. Either a colored sign or a sign stating "fall risk" are posted on the door and/or a bracelet in bright yellow that is on the patient's wrist. The second indication of the institutions' priority to decrease patient falls can be found in the chart, typically on the Kardex or nurse-to-nurse communication sheet. During the observations it became evident that many patients were on fall precautions. Typically at least one out of three patients was on fall precautions but on some of the observations the number was more than twice that amount. Nurses

determine if a patient is on fall precautions by completing a rating scale (Fig. 7.17) which is located on one of the flow sheets in the electronic record. Only RNs complete this scale, as doing so is considered an assessment and, according to the state statutes of nursing practice, only RNs are licensed to perform assessments. The assessment scale includes questions such as the patient's gender, if they are on certain medications, how stable the patient is when standing, etc. Both hospitals used the same scale as it is considered "evidence-based". When a patient is considered to be a fall risk, certain measures are usually implemented, such as the activation of an alarm system in the bed that would generate an alarm when the patient tried to get out of bed. If the patient is in a wheelchair, a "TABs" device would be used. This is a little box that is latched onto the back of the wheelchair and then attached to the patient via a string. If the patient moves forward too far the string activates the alarm in the device and generates an ear piercing sound.

RNs are expected to complete the assessment tool either once a shift or once a day.

If a patient does fall, the RN has to complete a Patient Event Form which starts a review process. A main focus of this review is to ensure all was done to prevent the fall, i.e., was the procedure correctly followed. This process can be found in the hospital policies and guidelines. One of the drivers behind these documents is JCAHO. In the early 2000's, JCAHO started adding "National Patient Safety Goals" (NPSG) to their requirements for accreditation. The NPSG Goal Nine for 2008 and 2009 is: "Reduce the risk of patient harm resulting from falls. Implementing a Fall Reduction Program" (Fig.

7.12). It is followed by eight hospital requirements (Fig. 7.13). Failing to comply can result in losing accreditation. If hospitals lose accreditation they risk losing Medicare/ Medicaid and other insurance reimbursement, as many of the reimbursers require hospitals to be JCAHO accredited.

Immediate situations can also influence the decision of when and how to handle patients. These decisions may be made in split seconds. Sue RN is asked by a colleague to help transfer Bert onto the gurney. Bert is in his mid-40's and weighs around 250 lbs. Bert's wife and some friends are at his bedside teasing him about his hospital gown. All of a sudden Bert starts moving onto the gurney by himself. He moves clumsily with his legs swinging over toward the gurney while his head is still in bed. Sue rushes to catch his legs because it looks like he might slide off the gurney.

In summary, caregivers work in an environment where they need to react to the immediate situations at hand and frequently cannot resort to theoretical models. Consistently the caregivers respond in ways that ensure the patient's safety. This way of acting is ingrained in the nursing discourse where the patient's best interest is the center of focus. When looking at the nursing code of ethics and standards of practice this is confirmed with statements such as:

1. The art of nursing is based on a framework of caring and respect for human dignity. (ANA Standards of Care 12)
2. The nurse in all professional relationships, practices with compassion and respect for the inherent dignity, worth, and uniqueness of every individual.

(ANA Code of Ethics Standards 1)

3. The nurse's primary commitment is to the patient. (ANA Code of Ethics Standards 2)
4. The nurse promotes, advocates for, and strives to protect the health, safety, and rights of the patient. (Code of Ethics Standards 3)

In addition, it matches the organization's mission as reflected in the mission statement of one of the hospitals, "The patient comes first". It is also important for some caregivers to not "rock the boat" by correcting peers or commenting on their practice. In part because of the peer review system, caregivers want to make sure they have a good relationship with their peers.

The Transfer

After the decision has been made as to when and how the patient should be transferred, the actual transfer occurs. Transfers result in 1 of 4 outcomes: 1) the transfer is successful and no problems have arisen; 2) the transfer has resulted in a staff injury; 3) the transfer has resulted in a patient injury; or 4) the transfer has resulted in patient dissatisfaction. When caregivers transfer patients, their assumption is that the transfer will be successful, yet unfortunately, that is not always the case, resulting in unanticipated staff or patient injury.

The vast majority of all the patient handling that occurs is completed *without a negative outcome* for either patient or staff. Caregivers handle patients many times during their shift. During this study some of the caregivers handled anywhere from a

couple to a dozen patients in an hour. Much of the handling involved helping a patient turn/reposition in bed or walking with them to the bathroom and seemed to be a natural part of the work that caregivers performed. This happens around the clock. For example, it was 2 a.m. when Fran RN enters Ryan's room which is very dark. One could not see much more than some contours. Ryan asks for some pain medication and wants to move on his side. Fran, working in the dark, removes a couple of pillows that he had in between his legs. She then helps push him over as he had pulled himself onto the side rail. Ryan wiggles back and forth to position himself. Fran leaves to get his medications. The vast majority of these transfers occur without any problems and above all, this work is, for the most part invisible. If there are no negative outcomes, patient handling only gets documented if required for risk management (e.g., pressure ulcer prevention) or for financial reasons (e.g., reimbursement requirement). Documentation will be discussed in more detail in the next section. The invisibility of the patient transfers that do not have adverse results makes it difficult, if not impossible, to determine the exact extent of the problem of adverse outcomes related to patient handling. During this study the researcher observed hundreds of transfers, yet only one minor patient injury was observed.

The first type of adverse outcome that can occur is a *caregiver injury* as one of the caregivers explained,

> *I hurt my back when a patient started falling. Hurt my lower back. Before that, I hurt my back as a nursing assistant . . . my back went out almost a month. Then I was fine for a while. Now it just kind of gets bad*

when I work five days in a row or doubles or whatever. Then it will be fine and the last time I had an injury I was shoveling. It is the same kind of motion as lifting a patient. It is a constant kind of thing. I think I do the best body mechanics that I can do with knowing what I need to do. I normally don't try to bend forward very often. If I am cleaning the patient up then I will raise the bed up. I am conscious of that. I think it is the repetitive movement of patients all of the time . . . I have PT. I went about two months ago. I had a really bad hernia so I went and had an epidural shot in my spine and then I was on light duty for about three weeks.

When asked by the researcher to explain the process that was followed when she got injured, the caregiver explained,

When I got injured at work, I called the charge nurse and I let her know. Then she sent me to occupational health, then they told me to go to the ED, and then the ED doctor told me that I was off work. Then you are seen in occupational health. They ask you questions in the ED and if it is work related, then you say yes and you can either call Occupational Health and go from ED to Occupational Health or fill out your paperwork in Occupational Health. Then you go see the nurse practitioner in Occupational Health. They get records from your primary. You have to keep Occupational Health informed for how long you are out according to your primary (provider). Then you will have to fill out back-to-work slips which also needs to come from your primary.

In the case described above, the caregiver reported the injury and it was covered under workers' compensation. Yet not all injuries get reported as a different caregiver explained, "I hurt my back last year when I was turning someone. Pulling her shoulder and then turning her on her side. I was in pain for several weeks but didn't report it because it did not seem bad at first."

When caregivers get injured they have the option of reporting it. In some cases, such as described in the first situation above the caregiver reported the injury. In the second situation the caregiver opted not to report the injury. Recent studies confirm that underreporting of injuries in healthcare is a common occurrence (Silverstein, 2006, Siddharthan, 2005). On two of the units that participated in this study, graphs reflecting the number of staff injuries were prominently displayed in the staff room. The graphs displayed the number of injuries that had occurred on the unit. The goal was written on the top of the posting, namely, “to have zero staff injuries". A manager mentioned that the topic of injury rates was consistently brought up at the caregiver staff meetings. It became evident to the researcher that decreasing the number of reported injuries was how the institution measured the success of a Safe Patient Handling Program. Especially because the institutions invested a significant amount of money installing equipment, they were motivated to see a return on their investment. It became clear to the researcher that the system that was intended to decrease injuries was also discouraging caregivers to report their injuries as it is reasonable to assume that very few people want to have their injury be the reason why a unit or institution is not meeting

their goals. This is accentuated by the fact that injury report data have to be shared with institutions outside the hospital namely, OSHA.

The second type of adverse event that can occur during patient handling is a *patient injury***.** This can be in the form of a fall as a patient is getting up or an injury such as encountered by Jason described in Chapter 5 in "This is very safe but it feels unsafe" where the patient incurred a skin tear while being moved. The caregiver explained the occurrence as follows, "It looked like it was rubbed to me. He has a blood blister there already. The skin tore off the blood blister. He has blood blisters all over that arm. He must have torn one [another blister] last night because he has not had a patch there since last night. It must have happened on days because we did not have the one that was on the top of the forearm. Then he had a blood blister there and the skin came off of that. That is where the blood came from."

When an adverse patient event occurs, the caregivers are required to notify the primary physician and fill in a patient event form. This might trigger a review process called a Sentinel Event Review. Implementing the sentinel event process is required by JCAHO as a means of giving institutions the opportunity to learn from accidents or errors that were made. If a case is deemed to be a sentinel event (and risk managers make this determination), a number of meetings are scheduled with representatives of the treatment team, risk management, and caregivers to analyze exactly what happened and to propose recommendations to prevent the same (or similar) situations from occurring in the future. The process is intended to be non-punitive, yet is typically stressful because

every step of the caregiver's work is analyzed and mapped out on diagrams. In cases where there is clearly a violation of policy, the managers can still pursue corrective action against the caregiver; this is, however, a separate process, outside the scope of the sentinel event process.

The third adverse event that can occur is that the patient handling causes the *patient and/or the family to be dissatisfied with the patient's care*. When patients are dissatisfied they can file a complaint with the Patient Relations Representative of the hospital. The Health Department and JCAHO both require that patients have access to a mechanism which can address their concerns or dissatisfaction. Every complaint is logged and tracked by the organization. When a patient files a complaint about the care they received, the Patient Relations Representative addresses this with the unit leadership to seek a resolution of the problem. In most cases this is the Nurse Manager. The manager will follow-up with the caregivers and patient involved by first substantiating the complaint and then attempting to resolve the problem. This can include interventions such as giving the caregiver feedback or initiating formal corrective action.

In other cases, the patient or his family might opt to file a complaint with the Health Department. In these types of situations the Health Department will instigate an investigation. This could involve an audit of the workplace or place a subpoena on the hospital records. The Patient Bill of Rights is a key document that gets taken into consideration. All complaints and the findings are made public on the internet (http://www.health.state.mn.us/divs/fpc/directory/surveyapp/provcompselect.cfm). If the

Health Department determines that licensed caregivers have performed their work inappropriately, they can refer the concern to the appropriate licensing board (e.g., Board of Nursing), who will then review the complaint to see if the caregiver's license should be suspended or revoked.

In summary, throughout their shifts, caregivers frequently handle their patients as a main part of their regular work. Much of this work is invisible. When done correctly, it is invisible to the institution. Only when there is a negative outcome does patient handling become evident. There are three distinct negative outcomes, which all get addressed with different procedures and are based on different policies and legislation. When caregivers come into a patient room to handle a patient, they need to take all three potential negative outcomes into consideration and based on often a split-second assessment as to which is most likely to occur, select their method of handling. For instance, if a patient looks like they will fall, the caregivers will intervene to ensure patient safety. If a patient is in excruciating pain, they will adapt their interventions to minimize discomfort. And finally, if a patient is obese and not able to assist, they might decide to use equipment to protect their back. However, when weighing which potential negative outcome has the highest probability of occurring the outcome still is unknown. For example, a caregiver is asked by an obese patient to be helped to the chair. She considers using the lift, but the patient complains that this makes him out of breath. He assures the nurse that he can stand steadily on his feet. The nurse decides that respecting his request is the best route to take and helps him up. Yet, while transferring, the

patient loses his balance. The nurse automatically responds by trying to stabilize him and does so successfully. However, after she leaves the room she feels a strain in the back of her back and the next morning when she sits at her breakfast table she cannot get up anymore due to back pain. In hindsight it is easy to say that having used the lift could have prevented the back injury. But it is not possible to know if the nurse had chosen the lift whether to client would have complained or even been injured using the lift. The nurse made the transfer decision based on the potential for three negative outcomes: injury to herself, injury to the patient, and patient dissatisfaction.

Patient handling problems only become visible after an event has occurred and the associated process is initiated. With 20:20 (hindsight) vision, the errors are analyzed according to the process set for that type of event. The caregiver's performance is reviewed taking only those policies that are associated with the type of event into consideration, not recognizing that at the time of the transfer, the caregiver was confronted with three potential adverse events.

Documentation

Introduction

After caregivers have handled their patients and provided other required cares they document their care. Documentation occurs in the Electronic Patient Record and is predominantly done by the nurses. As mentioned earlier, in one of the hospitals the NAs did not have access to the patient record, thus the RNs performed all the

documentation including that based on information they received from the NAs. In the other hospital the documentation by NAs was limited to entering data in the flow-sheets.

The RNs spend a large part of their shift documenting. During this research study the time nurses spent on the computers encompassed at least 30% of their shift and in some cases this was closer to half of the time they offered care.

The first forms that nurses complete are the *flow sheets***.** Patients have multiple flow-sheets on which their care is documented. The reason that caregivers complete the flow-sheets is primarily to reflect certain tasks that have been done. This can be for legal reasons (e.g., Documentation that a patient has been turned to prevent pressure ulcers) or for reimbursement reasons (e.g., the documentation of certain billable supplies or medications) and the communication of information (e.g., lifting instructions). The researcher became aware that most of the moves and repositioning of the patients did not meet any of these criteria, thus the work did not get documented. When caregivers complete the flow-sheet they typically can only choose what they document from a limited number of options in a drop-down menu (Fig. 7.15). Consider the following situation:

Pearl RN answers the call light in Amanda's room. Amanda is in her mid-seventies and has left hip pain along with a urinary tract infection. She could no longer function at home so her children brought her to the Emergency Room where she was admitted to the hospital. Amanda is sitting in a chair in front of the TV. On the TV happy contestants are playing a game. Amanda barley looks up when Pearl RN comes in. She is moaning

while rocking slightly in her chair. In her left hand she has a Heparin lock. Amanda asks, "Can you help me back to bed?" Pearl RN gets the walker and puts it in front of Amanda. She holds Amanda under her elbow as she tries to stand. Amanda slowly stands while she is moaning, "Oh, oh, oh, oh!" Slowly she walks over to the bed and sits on the edge. Pearl RN squats down and lifts her legs onto the bed. Amanda moans until after she is lying down. When the patient is lying down she complains, "I can't stand to lie down either!" Pearl RN suggests that Amanda take a pain pill. Amanda agrees.

This whole situation is reflected in the record as "assist x1". Although the pain and pain medications are documented, this is on separate forms, losing the connection between how the patient was helped, the pain and the medications. Thus, the information that is documented, even if "complete" is broken down into separate entries and not seen in its complexity. The information that is entered in the flow-sheets is used by institutions for statistical purposes. Because the majority of the content is written in a standardized manner (use of drop-down boxes), it makes it easy to quantify the information. Quality improvement units in both hospitals relied heavily on these data to create reports which were then used to help shape policy. For example, nurses are required to complete a fall assessment tool every shift. The level of compliance with this requirement can easily be monitored by creating a report that reflects the times that the assessment was completed. These data are then used as a tool to improve compliance with the fall assessment policy, which the hospitals are required to complete for accreditation purposes.

The caregivers also document on the *nurse-to-nurse communication sheet* (Fig 7.16). This sheet is intended to allow caregivers to communicate the care that a patient requires from one shift to the next. On this sheet there is a section on which the nurse could document how the patient should be helped. In the case of Amanda, the complex situation which involved several factors such as pain and instability was summarized as "Assist x 1". The nurse-to-nurse communication sheet is not a part of the permanent record. This doesn't mean that the information isn't or can't be kept permanently but is a legal designation. If a part of the patient record is designated as being impermanent, the information cannot be used for legal purposes. As a consequence, the information on this sheet becomes "invisible" as part of the overall delivered care.

On rehabilitation units the nurses are responsible for competing *Functional Independence Measures* (FIM) scores in addition to the flow-sheet documentation. The researcher witnessed RNs completing these scores every shift. For instance, Marco was admitted to the rehabilitation unit after a motor vehicle accident. When Anita RN looks on Marco's therapy schedule, she notices that he would have OT at 8:30 a.m. and PT at 9:00 a.m. Anita RN returns to the computer and did the FIM scoring. She proficiently clicked through the screens in the electronic chart:

- Activity>repositioning>x1
- FIM>transfer bed chair> max assist (score 2)

She turns to me and says, "FIM scores have a higher numerical value the more independent the patient is." She clicks on a field on the screen and continues, "The definition for a 2 is: 'The patient required lifting assistance from the helper to come to a standing position and to return to a sitting position' (2)." Anita RN then continues her documentation by clicking on more boxes:

- Turn in bed>Max assist > 1 person
- Up to BR>Total > 2 people or lift

FIM scores were developed in the mid 1980's to support the Uniform Data System for Medical Rehabilitation in an effort to curb the accelerating cost of inpatient rehabilitation expenses and to ensure patients did not receive more care than needed. The purpose of FIM scores is to measure the patent's level of functioning. Based on this score, a rehabilitation plan is developed. FIM scores have increased in importance in acute rehabilitation centers as the Centers for Medicare and Medicaid Services link payment to institution's measurement and submission of FIM scores on each patient. FIM scores measure 18 different activity categories on a seven-point rating scale. Some examples of categories are ambulation, the ability to transfer, social cognition, and self-care. The caregivers rate these levels of activity from independent (no help needed) to complete dependence (needs total care). FIM scores are completed by RNs on a shift to shift basis. The scores are documented in the Electronic Patient Care Record in an area on flow sheets specifically developed for this purpose. To ensure that FIM scoring is done correctly and the hospital is reimbursed fully, both of the research sites had a full-

time RN whose sole job was to monitor the completeness of the FIM scores and ensure that they were submitted to the payers appropriately. The FIM scores are documented in addition to any other areas in the chart that ask about patient mobility or transferring.

Once a shift, nurses are required to write a *progress note*. Progress notes are written in the form of a narrative note. In this note the nurse can describe and capture care issues that were not reflected in the flow-sheets. Typically the nurses paint a picture of the overall condition and describe what progress the patient made on their shift. Thus, they usually reflected the overall patient condition rather than specific interventions such as handling the patient. In one of the hospitals, the narrative section had a "cut and paste" function where nurses would cut and paste previous notes as the basis for their own note. The researcher noticed that even though this feature made documenting more efficient, it also led to many of the notes being the same, with only minor changes being made. Progress notes, because of their narrative nature are not used to create reports, making the content invisible at an institutional level.

When a patient gets injured the nurse is required to complete a *Patient Incident Report Form*. The RN documents what occurred in the patient record and the patient is evaluated by a physician. The caregiver also notifies their direct supervisor of the injury and completes the patient incident form. This patient incident form is used to evaluate the risk that this injury poses for both the patient and the organization. Copies of this form are sent to a special department that deals with patient events. In severe cases, the report of an injury triggers a so-called sentinel event meeting. Accreditation bodies

such as JCAHO and the State Health Department require that all injuries be evaluated and processes put into place to prevent future injuries. When hospitals follow the correct procedure for the incidents, the hospital is protected by peer review. This means that they do not become a part of the patient record. If legal measures are taken against the organization these records do not have to be disclosed. This is important for organizations, because if this process would put them at risk for legal action it could discourage reporting and finding solutions to prevent further occurrence of problems. The collective data from patient injury reports is also used by organizations as a measure of quality of care delivery. For instance, organizations closely monitor the number of medication errors or other injuries that occur within their facility in order to determine if their care is improving or declining. These data are usually exhibited in graphs or tables and shared with caregivers during unit meetings or posted in staff rooms.

Finally, when a caregiver gets injured, they need to complete a *Staff Injury Report Form***.** This form is used to determine eligibility for workers compensation benefits and serves as a record of what occurred. Thus, copies of this form not only get sent to the workers compensation department, but also to the safety department, which in its turn might need to report the injury to OSHA. In order to allow the institution to determine eligibility for workers compensation or if the injury is a reportable one for OSHA, the questions on the report form focus on the eligibility criteria set by the workers compensation office. This is in contrast to questions that focus on gaining a clear understanding of the specifics and complexities that actually occur in the everyday.

In summary, what institutions require caregivers to document is more of a reflection of what the organizational priorities are (e.g., risk management and billing) than a reflection of the actual care that is provided by the caregivers. The documentation requires caregivers to squeeze their complex experiences of working with individual patients into quantifiable categories that reflect the institutional priorities. The actual work of caregivers as, explained in Chapter 5 becomes invisible and within the institutional measures.

Actual care delivery involves many factors from obtaining knowledge of the patient, initially encountering them, and deciding how and when they should be handled. The actual handling of patients, which occurs at a very high frequency as part of caregivers' daily work, is largely invisible unless one of three adverse outcomes occurs. In the event of an adverse event, specific procedures and documentation are required which largely evaluate the event through a narrow lens that does not recognize the complexity of the situation and the caregiver's judgment. The documentation requirements of nurses takes large amounts of their time and is streamlined to focus on those issues that affect the organizational priorities rather than on the complexities of the individualized care provided. It is the complexities of the care environments, the uniqueness of the individual patient, and the decision-making process by caregivers when trying to comply with multiple competing guidelines and policies, that need to be further explored to gain an understanding of the exposure to risks that confront caregivers in their daily work.

CHAPTER 8

Discussion

This Institutional Ethnography examined the everyday practice of patient handling and how this practice is impacted by institutional texts. By examining the everyday practice of patient handling, the uniqueness of patient encounters and the complexities of individual situations became apparent. The findings of this study describe caregiver risk in relation to musculoskeletal injuries and the institutional issues that impact them. This chapter will focus on how patient handling and caregiver risk is impacted by policies, practice, documentation, knowledge, education, evidence-based practice and hospital organizational structures.

Policies

Regulations and policies are implemented with the intention of solving or addressing a specific problem or issue. For example, the "Minnesota Safe Patient Handling Law" was passed with the intention of decreasing caregiver injury reports resulting into savings in workers compensation claims. Such laws and other "Boss texts" are translated at the hospital level into policies or practice guidelines, in this case, the institutional safe patient handling policy. Although a safe-patient handling policy makes sense in the abstract, when implemented in everyday practice it isn't as straight forward. When looking at patient handling through the lens of the policy, it is clear what step by step actions should be taken. However, in everyday practice this clarity disappears when the caregiver is confronted with complex care situations with real patients and unique

needs such as a patient with bilateral lower extremity amputations who was unable to be lifted in a lift sling. In everyday practice, the complexities encountered in the care setting and the unique needs of patients cannot be ignored; even if caregivers did everything 'by the book,' most of the situations they encountered wouldn't be in the book. This is because regulations and policies treat patients uniformly and as "averages" resulting in a standardized prescription that fails to account for the specifics of unique individuals in dynamic and complex situations. Caregivers work in an environment where they are not dealing with a single policy at a time but with a multitude of policies simultaneously. A caregiver working with a patient in pain, with a major wound, and who requires assistance with mobility is governed by many policies. Thus, not only are policies unable to address the uniqueness of everyday practice, but they also frequently conflict with one another. The "Boss texts" on which hospitals base their policies are requirements specified by regulatory agencies and accrediting bodies outside the hospitals. On their own, these Boss texts make good sense in principle but when all must be considered together at the bedside, they make for conflicting priorities. The caregiver must weigh the importance of the Bill of Rights and the Ethical Standards set forth by her professional organization when considering the individual autonomy and respect of the patient. The caregiver must adhere to the safe patient handling guideline, (the institution's means of enacting/enforcing the Safe Patient Handling Law) when considering how to handle a patient. The caregiver must follow Medicare/Medicaid regulations enacted to prevent pressure sores or falls. Because of their bureaucratic, regulatory natures, hospitals have

hundreds of policies and guidelines, each with distinct purposes but all directed towards the same goal of best practice. They come together only at the beside, in the body of the patient where the caregiver is confronted with the issue of deciding which policy should received the highest priority.

A major finding was that caregiving work is driven by the top-down, not the bottom-up. That is to say that motivations, professional standards, and formal education are less central to caregiving than are regulatory requirements. From the examination of texts, the researcher found obvious, direct links between boss texts and the institutional policies that govern practice. The reverse was not the case. That is, there was no such clear, direct line from the standpoint of actual practice to guidelines and policies. This indicates the unidirectional nature of Boss texts – they are "top-down." The actual work of caregivers is invisible at the bottom while the external agencies at the "top" are visible and direct the work at the patient-caregiver level.

Practice

The actual practice of care giving is extremely complex. Not only are individual patients distinct from one another with multiple, specific needs, but each patient is also subject to a state of constant flux. From moment to moment, they may change mentally, emotionally and physically. Caregivers must assess the patient’s condition with each patient-handling interaction and be prepared to change how they approach the task. This

ability to adapt on a moment's notice means that policies can not be followed to the letter because no policy can capture the infinite possibilities.

Furthermore, assessment of the changing needs of their patients must be considered within the context of all the policies and guidelines to which the caregiver must adhere. When caregivers practice they are assessing all the risks at hand and making their practice decisions based on those conditions. The caregivers in this study generally were not aware of the specific Boss texts driving their practice, but were aware of the potential outcomes of any given patient handling encounter, namely a positive, uneventful encounter or a negative encounter. In a negative encounter, either a caregiver or patient is injured or a patient makes a complaint about the encounter. In patient handling situations, caregivers were observed to base their decisions on a calculation of which adverse outcome they believed had the greatest probability of actually occurring. If the caregiver thought a patient more likely to fall, they were handled differently than if they thought the patient would suffer additional pain. This was different from the way they handled a patient in a situation where they thought the probability high that they would be injured. All of these calculated decisions, even if split-second decisions resulted in an attempt to balance the multiple, competing Boss texts that govern care giving.

This study found that as nurses moved away from the bedside and into administrative or other roles, they forgot or overlooked the complexities they experienced in direct patient care. That the caregiver's work is "invisible" at the managerial/institutional level, apparently makes it easier to forget what actual practice is

like. This was made clear by the practice narratives prepared by the researcher and shared with nurses working in administrative or other non-direct care positions. Upon reading the narratives, they could certainly relate and affirm that the narratives accurately reflected the everyday experiences of care giving. The researcher, however, found it significant that they did not do this in other conversations with him. Until made 'visible' once again through the narratives, these nurses had lost their appreciation for the demands, decision-making, and discretionary judgment required in everyday care work.

Documentation

It is through documentation that delivered care becomes visible to the institution. This study found that, in regard to patient handling, the documentation systems reflect the organizational priorities rather that the actual care provided. Most of patient handling is uneventful and, therefore, is undocumented. If it is undocumented, it is invisible at the level of the institution. The documentation of uneventful care serves no regulatory purpose; on the other hand, turning patients meets a regulatory requirement to prevent skin breakdown. It is a major finding of this study that what is documented in patient care reflects legal, risk management, or financial requirements and not the complexities of the actual encounter. Because uneventful patient handling encounters are largely undocumented, the number and frequency of these events is unknown. In this study, the researcher observed that uneventful, patient handling encounters were a routine part of caregivers' work.

As long as patient handling does not have an adverse outcome the practice remains invisible. However when there is an injury there are multiple documentation requirements, thus making the adverse practice visible; a negative outcome triggers a process that involves completing forms and reports. This process occurs not only because it is typically mandated by regulatory agencies, but also because the negative outcome exposes the institution to risk. Although this documentation tells the institution that something has gone wrong, it tells them nothing about the context of the work in which it occurred. Therefore, institutions have a woefully inadequate understanding of the event itself. Different adverse outcomes have different reporting mechanisms that do not communicate with each other, such that the institution will never know if the documented adverse event was the result of preventing another, worse adverse effect. For instance, a caregiver helps a patient stand up. The patient starts to fall, but the caregiver prevents this by catching the patient but incurs an injury in the process. All that is visible for the institution is the staff injury and whether or not the safe patient handling policy was followed, without understanding the complexities of the situation and the unique patient needs.

Documentation on the electronic patient chart, versus the paper chart, has made the situation worse. Because electronic patient records are set up as large spreadsheets, all information needs to be entered as separate data points. Documenting complex situations as single data points results in loss of understanding of the situation. In the example of Barb (pg 85) who was assisted with a transfer and given pain medication, the

separate points of information are entered into the computer as amount of assist, pain level, and time/amount of medication but the actual experience of the event is lost.

The change to the Electronic Patient Record (EPR) has also changed the locus of control of practice from the unit level to the institutional level. If there is a new regulation or requirement mandated as part of internal priorities or external mandates, the institution can imbed those requirements into the documentation flow sheets. Not only can the caregiver be prompted or required to document certain tasks, caregiver compliance can be easily and centrally monitored. For example, compliance with assessing for pain or fall risk can easily be monitored. The EPR also is used as a source of information for the annual performance evaluation for caregivers. Because compliance can be monitored through the computer, caregivers' performance, which is based on complying with institutional requirements and promoting the organizational priorities, can easily be tracked through generated reports.

Of particular interest, this researcher found that the documentation caregivers rely on for handling their patients was found in the unofficial patient record. In other words, the information caregivers need to do their work is invisible in that it is not regulated as part of the official patient record. Caregivers rely on, and communicate to their peers through the informal information that relays the specifics of patient needs. The researcher observed caregivers regularly referring to the unofficial nurse-to-nurse communication section to gain information on their patients and documenting on the flow sheets the required information of the care they provided; only to a much lesser extent did

caregivers refer to the official record to gain information on how to do their work handling patients

Knowledge

This study showed that knowledge regarding the handling of a patient is essential for caregivers. They obtain their information from several sources. The first, and by far most important source is their personal knowledge of the patient. Consistently, caregivers exhibited that knowing a patient was foundational for how they would handle them and for preparing them to respond successfully to unexpected patient-handling encounters.

The second source of knowledge caregivers rely on to handle their patients is obtained from their peers. This knowledge comes from shift-to-reports in the form of the nurse-to-nurse communication sheet, informal verbal conversations, and reminders in the form of posted signs or comments on grease boards located by the patient's bed. If nurses know that a colleague has been involved in the care of a patient who is considered a "heavy" lift, they will use that person as the primary resource.

The third source of knowledge is based on caregivers' experiences with patients of similar diagnoses and conditions. One of the reasons that caregivers express ambivalence toward working on other units when the workload on their own floor is down, is because they often don't have the knowledge of that patient population. Thus, their work is less informed, more tentative, less efficient, and often, less effective.

Caregivers function at the interface between the patient and the transfer equipment. The knowledge that comes from understanding the specific problems of certain patient populations includes knowing how and what equipment can best be used with those problems.

The fourth source of knowledge came from institutional-sponsored classes such as orientation. What caregivers use from these classes are very basic technical skills of using equipment such as how to hook a sling on a lifting device etc. Although important, this knowledge is a relatively minor part of the knowledge needed to transfer a patient.

This class material comes from texts that include manuals, policies and guidelines. In this study, this was the only source of knowledge that was not observed to be used by caregivers; they also admitted that they rarely referred to manuals and policies.

Education

This study found that the information taught about patient handling in theory appeared to be more "profound" than what actually occurs in everyday practice. When how to transfer a patient is presented in a class or in a textbook, the actions to take seem clear. Yet, the moment caregivers enter a patient room, the situation changes and what is given the most attention is the most acute need(s) of that moment. For example, the intention in theory may be to move a patient with a stand pivot transfer but when the patient is encountered already up and in the bathroom, a different focus takes priority – how to return the client to a safe position while respecting their rights and dignity. The dynamics that occur when caregivers encounter real patients with actual

needs is not a part of the curriculum and it would be impossible to create a standardized approach or algorithm that reflect everyday practice. The national safe patient handling movement led by the American Nurses Association criticizes the traditional approach of body mechanics education as not being useful in actual practice. Ironically, this study found that the applicability of the new safe patient handling methods has many of the same limitations, namely that when implementing the guidelines in everyday practice, it often doesn't apply to the given situation or other concerns take precedence. This shows that caregivers must learn to make contextual decisions in complex situations rather than how to apply "correct" rules.

Another finding is that there is an inconsistency between the resources caregivers were taught to use during institutional classes and orientations and the actual resources available on the floor. An electric lift or four-person transfer might be what is taught, but the equipment or personnel was not always available in actual practice. The researcher believes this is a manifestation of the conflict between two organizational priorities, fiscal responsibility and reducing caregiver injuries. A balance between these two priorities for organizational success means that costs will be incurred to provide needed lifting equipment but at the same time, extra equipment and personnel are not cost effective. This is an organizational reality and caregivers should be trained in problem-solving and judgment to handle patients in these situations. Likewise, institutions must support caregivers when adverse events do occur as a result of ideal transferring equipment and personnel not being available.

Evidence-based Practice

Even if all equipment and personnel needs were met for every patient encounter, it would not guarantee that caregiver injuries would cease. The type of equipment and number of personnel recommended are based on the guidelines for safe patient handling that are promoted as being evidence-based. From the available literature on safe patient handling, it is unclear what constitutes "evidence" and who has the authority to challenge that "evidence." It was clear during the observations that, in many cases, the proposed solutions presented in the literature, did not apply or did not make sense within the context of the actual situation. When examining what is currently considered "evidence" in safe patient handling, it becomes clear that most of the "evidence" is based either on laboratory studies which did not involve the handling of actual patients, or has not been performed within the complex work environment of everyday practice. Yet, the caregivers who encounter the discrepancies between what is recommended and what seems to be the best choice in the given situation do not have the power to make changes. Significantly, this is related to the fact that their knowledge, based on their experiences in practice, is disregarded or not taken seriously.

Job-description and Annual Review

The job description and the annual review function as the "lubricant" to ensure institutional objectives are met. They ensure that the caregiver knows what is expected of her to support the institution. A foundation is laid for this during the new employee orientation with the job description. The continued reinforcement happens during annual

performance evaluations and competency education. In regard to patient handling, caregivers are evaluated on how they apply the textual knowledge reflected in policies and guidelines, not the actual occurrences of everyday practice. The annual reviews are completed with input from peer evaluations and this can inhibit caregivers from challenging their colleagues in how they handle patients, thus exposing themselves to the risk of injury – they don't want to “rock the boat." Understandably, caregivers might conclude that the risk of poor feedback outweighs the risk of getting injured and, therefore, choose to do a higher risk transfer.

Structural Differences

Institutions treat staff safety and patient safety as two separate issues rather than as intertwined and, in everyday practice, typically inseparable. Patient and caregiver regulations are developed, implemented and reinforced by different agencies that have different priorities. Different processes are followed when a caregiver is injured in contrast to when a patient is injured. The caregiver is responsible for actualizing the institutional priorities by adhering to multiple, often conflicting, policies and guidelines. They report to the manager who reports to the supervisor and so on up the chain of command. The patient, however is responsible for their own well-being, and "reports" to his/her physician. In case of a complaint, the patient can contact the health department or seek legal help to ensure their rights are met. As a result, there is a disconnect between safety policies and initiatives for patients and those for caregivers. Patients have the Patient Bill of Rights protecting their safety and autonomy. At the same time, adhering to

the Bill of Rights can expose caregivers to risk of injury. Institutions appear unaware of this disconnect and the resulting conflicting policies leading to negative outcomes at the bedside. Instead, caregivers are often viewed as the cause of their injuries rather than as in the middle of a complex network of conflicting policies that they are trying to balance. When something goes wrong, complexity disappears and the focus moves to the single cause, the single policy or guideline governing, in this case, an injury. The institutional thinking – if only the policy had been followed, the injury would not have occurred – is naïve and morally damaging.

Implications

Education

Nursing education would be wise to change in a way that allows nurses to see what is actually occurring in everyday practice. Although baccalaureate education was supposed to advance nurses to being professionals, this is not occurring. Nursing education is still focusing on creating nurses to follow orders and not to question the structures in which they work. This is accomplished in several ways, for example, in requiring students to complete hundreds of forms in a single manner or requiring them to pass medication calculation tests using a single method. When students don't complete the forms exactly as required they can be removed from the nursing program. To create a healthcare system that is both safe for patients and caregivers, education would be wise to teach nurses how to see clearly how their everyday practice is governed by institutional texts. From this, they could teach a range of useful skills to ensure the "best" outcome is

achieved. These two aspects facilitate judgment, the hallmark of professionalism. This can be achieved by not only allowing, but requiring students to create solutions to the problems that they have identified. For example, students would learn this if they were able to perform a patient assessment and document their findings on a blank piece of paper rather than teaching them to fill in the blanks on a preprinted form.

Practice

To ensure a healthcare environment that promotes patient and caregiver safety, changes need to be made in how institutions are structured. The structural separation between patients and caregivers needs to be addressed. A first step would be that nurse administrators and educators be committed to and knowledgeable of everyday practice. This can be achieved by requiring all administrative and non-direct care nurses to maintain some level of direct patient care, a model used by other professions such as physicians and lawyers. There is no substitute for the knowledge acquired from hands-on experiences.

This study demonstrated the important role that the EPR has in patient care delivery. Sadly, it showed that everyday care is not accurately reflected within these records. Nurses primarily document data to support the institutional priorities of ensuring reimbursement and managing institutional risk. The EPR requires caregivers to document their findings in ways that strip the context by separating data-point entries. Yet this data contributes to the 'knowledge' base upon which patient treatments and institutional decisions and policies are formed. Accurate treatment decisions and sound policies

depend on both accurate and real data. The researcher's continued research will focus on Healthcare Informatics and specifically the interface between the actual patient condition and the reflection of that data in their record.

Limitations

This study was an Institutional Ethnography and thus relied heavily on institutional texts. Although the researcher was granted permission to access education materials and practice guidelines/policies, in addition to texts posted in public areas of the hospitals, he did not have access to or was not aware of all institutional texts pertaining to patient handling. This included specific injury data, workers compensation claims, staff files etc. Thus, these important texts did not inform this study. In Institutional Ethnographies the main source for understanding institutional priorities and mandates is derived from institutional texts. This study was limited by those texts available to the researcher. A consequence of this is that organizational priorities that are not captured in writing are not reflected in this study. The observations periods for this study were limited to 4-hour periods and thus none of the individual observation reflected a complete shift. Although observations were made around the clock, they don't reflect that work within the context of single-participant observations. There are many more structures and forces that govern how caregivers deliver direct patient care, such as scheduling departments and quality improvement initiatives. This research was limited to the observables of everyday patient handling and a specific set of institutional texts.

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APPENDICES

Appendix A. University of Minnesota IRB Approval

UNIVERSITY OF MINNESOTA

Twin Cities Campus

Research Subjects' Protection Programs
Institutional Review Board: Human Subjects Committee (IRB)
Institutional Animal Care and Use Committee (IACUC)
Institutional Biosafety Committee (IBC)

Mayo Mail Code 820
D-528 Mayo Memorial Building
420 Delaware Street S.E.
Minneapolis, MN 55455
612-626-5654
Fax: 612-626-6061
irb@umn.edu
iacuc@umn.edu
ibc@umn.edu
www.research.umn.edu/subjects

10/24/2007

Hans-Peter de Ruiter
School of Nursing
5-140 WDH
Minneapolis Campus

RE: "To Lift or Not to Lift: A Institutional Ethnography of Patient Handling"
IRB Code Number: **0710P18921**

Dear Mr. de Ruiter

The Institutional Review Board (IRB) received your response to its stipulations. Since this information satisfies the federal criteria for approval at 45CFR46.111 and the requirements set by the IRB, final approval for the project is noted in our files. Upon receipt of this letter, you may begin your research.

IRB approval of this study includes the consent form dated October 24, 2007 and recruitment materials received October 24, 2007.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 32 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

For your records and for grant certification purposes, the approval date for the referenced project is October 19, 2007 and the Assurance of Compliance number is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA00004003). Research projects are subject to continuing review and renewal; approval will expire one year from that date. You will receive a report form two months before the expiration date. If you would like us to send certification of approval to a funding agency, please tell us the name and address of your contact person at the agency.

As Principal Investigator of this project, you are required by federal regulations to inform the IRB of any proposed changes in your research that will affect human subjects. Changes should not be initiated until written IRB approval is received. Unanticipated problems or serious unexpected adverse events should be reported to the IRB as they occur.

The IRB wishes you success with this research. If you have questions, please call the IRB office at 612-626-5654.

Sincerely,

Carol Siegel, MLS, CIP
Associate Director
CS/egk
CC: Joan Liaschenko

Appendix B. *Hospital I IRB Approval*

Research Subjects Protection Program
Institutional Review Boards

Hans-Peter De Ruiter, RN, MS
University of Minnesota - School of Nursing
5-104 Weaver-Densford Hall
308 Harvard St. NE
Minneapolis, MN 55455

Re: **2410-1E**
To Lift or Not to Lift: An Institutional Ethnography of Patient Handling Practices

Dear Mr. De Ruiter,

Thai[illegible]sed consent form received November 30, 2007, in response to the stipulations of the A[illegible]n Hospital Institutional Review Board (IRB) as described in my letter of November 27, 2007. The requested corrections have been made; therefore, you are now fully approved and may start to screen and enroll participants into the above referenced study. A copy of the consent form bearing the Institutional Review Board (IRB) approval stamp is enclosed for your records. Please use a copy of the consent form bearing the IRB approval when obtaining signatures for consent. The IRB file number has also been stamped on the upper right hand corner of the consent form.

Please inform the IRB immediately of any changes or modifications to the protocol, consent form or supporting documents prior to initiation. This includes protocol amendments, changes in the number of participants, etc. In addition, all subjects enrolled must fulfill all inclusion/exclusion criteria; any exceptions must have prior approval from the IRB. You must notify the IRB if any participants experience serious adverse events or events that occur at a frequency or intensity greater than that described in the approved consent form.

It is your responsibility to submit an annual Continuing Review Form to this office. Your study must be renewed prior to November 14, 2008. The Continuing Review Form is available on the Allina web site at http://w[illegible]/research.nsf/page/forms. If your study has been completed or terminated prior to that date, please submit a final summary of your project in addition to the Continuing Review Form.

In any future correspondence with the IRB, please refer to the assigned study number, the principal investigator's name and the name of the board that reviews this study.

On behalf of the IRB I wish you success with your research. If you have any questions or concerns, please call the IRB administrative office at [illegible]0.

Sincerely,

IRB Manager

Appendix C. Hospital II IRB Approval

Principal Investigator Notification:

From: IRB

To: Hans-Peter de Ruiter

CC: Study Team Members that are marked as wishing to receive correspondence regarding the protocol/grant application

Re: Application # 08-002613

08-002613
Please Note: Effective immediately, communications for IRB decisions will be in a new format. This change is a result of recent standardization measures occurring in the IRB. If you have questions, please contact the IRB Service Center at (XX) X-XXXX.

Title: To lift or not to lift: an institutional ethnography examining patient handling practices

IRB#: 08-002613

Please note that all correspondence (modifications, continuing reviews, reportable events) related to this study/grant application must be submitted electronically in the IRB system.

The following is an excerpt from the minutes of the Expedited Review B of the (Name removed) Institutional Review Boards meeting dated 5/13/2008:

The Committee reviewed the deferral response form for the above referenced study. The Committee notes: 1) Research subjects will be enrolled at (Name removed) and (Name Removed) Hospitals and Clinics (Minneapolis, MN); 2) The consent form has been revised to comply with (Name removed)consent form template; 3) The investigator clarified that Drs. Joan Liaschenko and Cynthia Peden-McAlpine will have access to de-identified transcripts and observations; 4) The investigator clarified that the PI will be the only person involved in data collection. The Committee determines that the deferral issues have been adequately addressed and approves the study. This approval is valid for exactly one year unless during the year the IRB determines that it is appropriate to halt or suspend the study earlier. The Committee notes that the human studies activities involve observations and interviews of nurses. A maximum of 16 adult participants is approved for enrollment in this study at (Name removed). The Committee notes that no (Name removed) patient identifying information will be recorded, although medical record information may be accessed for patient-specific lifting/handling instructions. The

investigator is reminded that no records whether stored in the Hospital II medical record or a separate clinical database may be accessed for this study for participants who have declined authorization for use of their medical records in research. Research authorization can be verified on-line at http://www xxx./medinf/services/auth/res_auth html.
The Committee suggests that verbal consent be obtained from the patient to have an observer present. The consent form is approved with revisions. The IRB office will provide the final approved consent form on the IRB workspace for this item. The contact materials are approved as written. The Committee notes $75 remuneration will be provided to participants who successfully complete study interventions and determines that this is acceptable. The Committee determines that this constitutes minimal risk research, and therefore is eligible for expedited review in accordance with 45 CFR 46.110 Item 7. The Committee determines this research satisfies the requirements of 45 CFR 46.111.

P, R. M.D., Chair
E D, Specialist
(Name removed) Institutional Review Boards

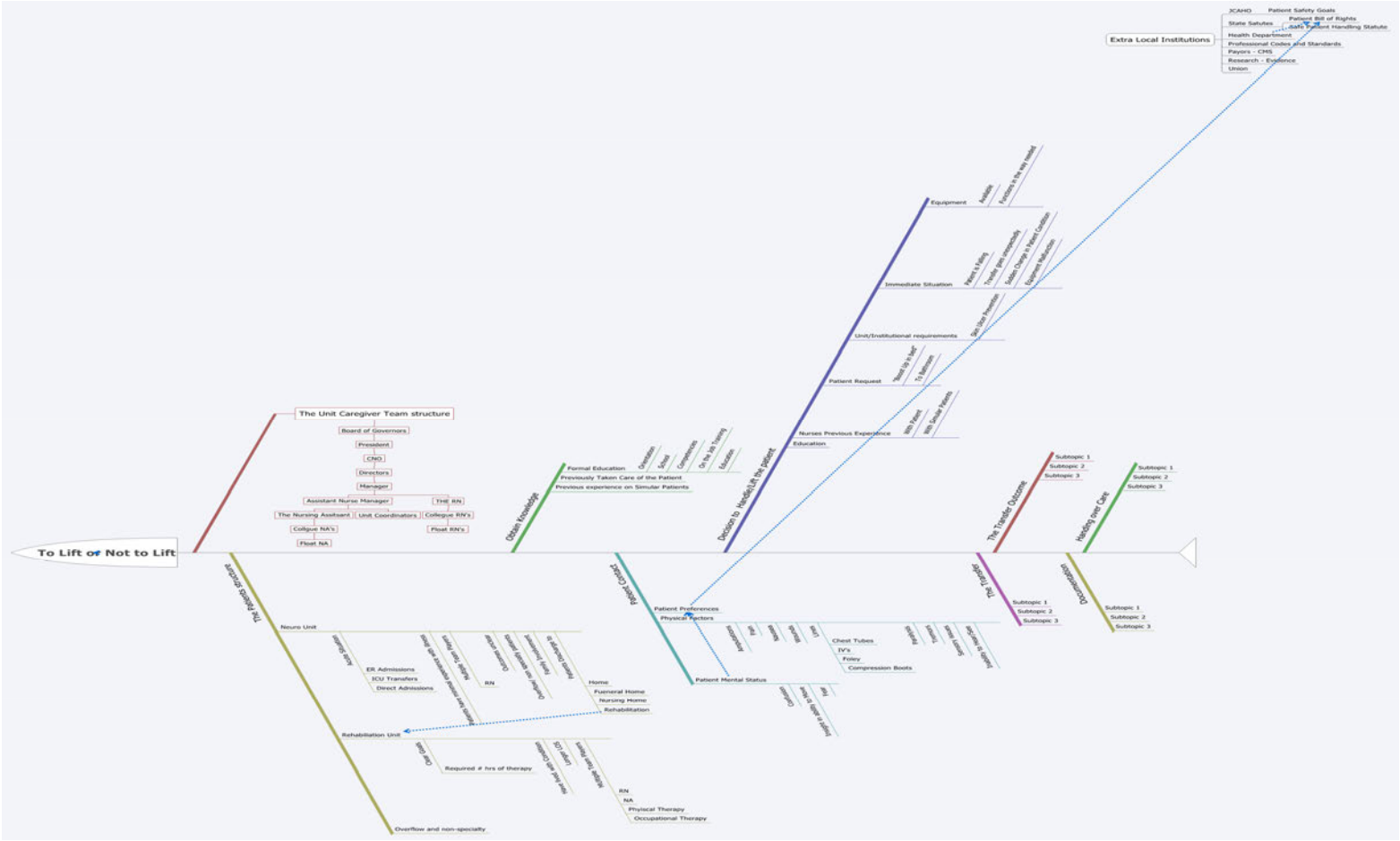
Expedited Review B

Appendix D. Research Recruitment Script

During the consent process the PI used the following script: "The purpose of this study is to understand Safe Patient Handling. This study will explore how caregivers actually lift and move patients as well as analyzing hospital guidelines and educational materials. To obtain this knowledge the researcher (I) will follow/shadow you over a four hour period while you perform patient-care. The researcher (I) will be asking you clarifying questions about the care you are providing during an interview held after the observation period. This interview will be held on your own time to ensure patient care is not interrupted. The information obtained in this study will only be used for this study. All information that could identify who you are will not be shared with others. During the interview, your answers will be recorded. Any personal identifier will be removed from these recordings prior to transcription. There are no direct benefits to you by participating in this study, but your participation will give the healthcare community insight regarding patient and caregiver safety. This knowledge can be used to improve both patient care and caregiver well-being.

As compensation for the time you spend on this study you will be compensated the amount of $75.00. The participation in this study is completely voluntary, and you may stop participation at any time. Whether or not you participate in this study will not affect your relationship with your organization or the University of MN in any way."

Appendix E. Ishikawa diagram (abbreviated version)



Appendix F. Hospital I Consent Form

CONSENT FORM

To Lift or Not to Lift: An Institutional Ethnography of Patient Handling Practices

You are invited to be in a research study that is examining how care-givers lift and move their patients. You were selected as a possible participant because you work on a unit where lifting and moving patients is a common occurrence. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Hans-Peter de Ruiter, RN, MS, PhD(c) doctoral student at the University of Minnesota.

Background Information:

The purpose of this study is: To examine how RN's, LPN's and Nursing Assistants move and lift patients in their everyday practice.

Procedures:

If you agree to be in this study, we would ask you to do the following things:

1. The researcher will observe you as you perform your everyday work for a period of approximately 4 hours.
2. The researcher will ask clarifying questions about your practice to obtain a better understanding of how and way patients are handled in a certain way. These conversations will be taped.

Risks and Benefits of Being in the Study:

A risk associated with participating in this study is that your identity as participant might be disclosed. All efforts will be made to protect your identity but removing information that might identify you. All recordings will be destroyed after they have been transcribed. This study will be performed on similar units in two different facilities with as purpose to protect your identity.

There will be no direct benefits for you by participating in this study. However, the knowledge obtained in this study might benefit the care of future patients and the safety of caregivers.

Compensation:

You will receive payment: $75.00 after competing the observation period.

Confidentiality:

The records of this study will be kept private. Publications will not include any personal identifying information. Research records will be stored securely and only researchers will have access to the records. *(If tape recordings or videotapes are made, explain who will have access, if they will be used for education purposes, and when they will be erased.)*

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota or (Name removed) Hospitals and Clinics. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Hans-Peter de Ruiter. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at the University of Minnesota, . You may also contact the researchers' advisor: Joan Liaschenko, RN, PhD, FAAN, Professor at the University of Minnesota at

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the University of Minnesota Research Subjects' Advocate Line, D528 Mayo, 420 Delaware Street S.E., Minneapolis, Minnesota 55455; (612) 625-1650.

If you would like to speak to someone about your rights as a research subject you may call the (Name removed) Institutional Review Board administrative office at (XXX) XXX-XXXX.

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature:_____ Date: _____

Signature of Investigator:_____ Date: _____

Appendix G. Hospital II Consent Form

IRB: 08-002613 00 Page 1 of 7 XX1552rev0803 Consent Form Approved: May 13, 2008 This Consent Valid Through: May 12, 2009 Name and Clinic Number IRB #**08-002613 00**

Consent form approved **May 13, 2008**;
This consent valid through **May 12, 2009**;

1. General Information About This Research Study

Study Title: To Lift or Not to Lift: An Institutional Ethnography of Patient Handling Practices

Name of Principal Investigator on This Study: Hans-Peter de Ruiter, RN, MS, PhD(c) and Colleagues

A. Study Eligibility and Purpose

You are being asked to take part in this research study because you are an RN, LPN or PCA on Unit A (Inpatient Rehabilitation) or Unit B (Inpatient Neurology).

As you read this form describing the study, ask any questions you have. Take your time to decide. You may stop participating at any time during the study. You may decide not to participate. If so, this will not affect your employment in any way. When you feel comfortable that all your questions have been answered, and you wish to take part in this study, sign this form in order to begin your participation. Your signature means you have been told about the study and what the risks are. Your signature on this form also means that you want to take part in this study.

B. Number of Participants

The plan is to have 16 people take part in this study at (Name removed)Clinic.

C. Additional Information You Should Know

The Minnesota Nurses Association Foundation is funding the study and will pay the researcher to cover costs related to running the study.

2. What Will Happen To You While You Are In This Research Study?

If you agree to be in the study, you will be asked to participate in the following:

A. You will be observed for a 4 hour period while you are doing your work as a caregiver. The researcher's observations will focus on how and why patients are handled.

B. You will be interviewed after the interview for 45-60 minutes. The focus of the interview will be on helping the researcher understand your practice. This interview will be on your own time.

3. How Long Will You Be in This Research Study?

You will be in the study for 5 hours, which will include a 4 hour observation at work and an interview that will take 45–60 minutes.

4. Why You Might Want To Take Part In This Research Study

This study will have no direct impact on your practice as a caregiver, however the knowledge obtained in this study may lead to a safer future work environment for both patients and caregivers.

5. What Are The Risks Of This Research Study?

The risks that you may be exposed to are:

1. Breach of Confidentiality: In order to ensure that confidentiality is maintained, your name and any other identifying features about you will be removed and replaced with pseudonyms. Any audio recordings will be transcribed and the recordings will be saved in a locked cabinet for five years after which they will be destroyed.
2. Discomfort related to being shadowed. To limit the discomfort related to shadowing, observations have been limited to a 4 hour time-frame. It is anticipated that 4 hours is an appropriate amount of time to observe how you handled patients, without being overly burdensome.
3. Fear of consequences when the procedural guideline is not followed correctly. The researcher will not be familiar with the practice guidelines until the analysis phase of the study. The researcher will not know if the observed actions conform to practice guidelines. The researcher will only report any actions observed that require reporting under Minnesota law (e.g. abuse).

    1) Will women of child-bearing-potential be allowed to participate in this study?

    Yes: Women of child-bearing-potential will be able to participate in this study because the risk to an unborn child appears to be very small.

    2) Will pregnant, and/or nursing women be allowed to participate in this study?

    Yes: Women who are pregnant, and/or nursing and are not on work restrictions may take part in this study because the risk to an unborn or nursing child appears very small. You will only be observed doing your

work as permitted by your employer and will not be asked to perform any additional or specified tasks.

3) Do you need to have a pregnancy test done to be part of the study?

No: Because the risk to an unborn child appears very small.

4) Will men who are able to father a child be allowed to participate in this study?

Yes: Men who are able to father a child are allowed to take part in this study.

Risk Summary

The risks of this research study are minimal, which means that we do not believe that they will be any different than what you would experience when working a shift on your care unit or during your daily life.

6. What Other Choices Do You Have If You Don't Take Part In This Research Study?

This study is only being done to gather information. You may choose not to take part in this study.

7. Are There Reasons You Might Leave This Research Study Early?

Taking part in this research study is your decision. You may decide to stop at any time. In addition, the researcher, or (Name removed)may stop you from taking part in this study at any time:

- if it is in your best interest,
- if you do not follow the study rules,
- if the study is stopped.

8. Will You Need To Pay For Any Of The Tests And Procedures?

You will not need to pay for procedures which are done just for this research study. These tests and procedures are:

- observations during your work day,
- interview with the researcher.

9. Will You Be Paid For Participating In This Research Study?

If you finish the study, you will receive $75.00. This money is for the time you spend in this study. If you start the study but stop before finishing the study, you will receive part of this money.

10. What Happens If You Are Injured Or Ill Because You Were In This Research Study?

If you have side effects from taking part in this study, you need to report them to the researcher and your regular physician, and you will be treated as needed. (Name removed)will give medical services for treatment for any bad side effects from taking part in this study. Such services will be free if not covered by a health plan or insurance. No additional money will be offered.

11. What Are Your Rights If You Are In This Research Study?

Taking part in this research study will not change your rights and benefits as a (Name removed)employee. Taking part in this research study does not give you any special privileges. If you decide to not participate in this study, or stop in the middle of the study, no benefits are taken away from you.

You will be told of important new findings or any changes in the study or procedures that may affect you or your willingness to continue in the study.

12. What About Your Privacy?

Authorization To Use And Disclose Protected Health Information

Your privacy is important to us, and we want to protect it as much as possible. By signing this form, you authorize (Name removed)Clinic and the investigators to use and disclose any information created or collected in the course of your participation in this research protocol. This information might be in different places, but we will only disclose information that is related to this research protocol for the purposes listed below.

This information will be given out for the proper monitoring of the study, checking the accuracy of study data, analyzing the study data, and other purposes necessary for the proper conduct and reporting of this study. If some of the information is reported in published medical journals or scientific discussions, it will be done in a way that does not directly identify you.

Transcripts of the interviews and observation notes will be used as described for this study. All personal identifiers will be removed.

No personal health information will be collected from you.

13. What Will Happen to Your Samples?

No biological samples will be collected as part of this research study.

14. What Is The Institutional Review Board (IRB) And How Does It Protect You?

The (Name removed)Clinic IRB is made up of:

- Physicians and Scientists
    - IRB Specialists

- Allied Health Employees
- Local Community Members
- Visitors (Lawyers, Compliance, Administration, and others).

The IRB reviews human research studies. It protects the rights and welfare of the people taking part in those studies. You may contact the IRB if you have questions about your rights as a participant or if you think you have been treated unfairly.

15. Who Can Answer Your Questions?

You can call …	**At …**	**If you have questions or concerns about …**
<u>Principal Investigator</u>: Hans-Peter de Ruiter	**<u>Phone</u>: XXX-202-7964**	- **Questions about the study tests and procedures** - **Research-related injuries or emergencies** - **Any research-related concerns or complaints**
<u>IRB Administrator</u>: (Name Removed)	**<u>Phone</u>: XXX-XXX-4000** **<u>Toll-Free</u>: XXX-XXX-XXX**	- **Rights of a research subject** - **Use of protected health information** - **Any research-related concerns or complaints**
<u>Research Subject Advocate</u>: (Name Removed)	**<u>Phone</u>: XXX-XXX-4000** **<u>Toll-Free</u>: XXX-XXX-XXXX**	- **Rights of a research subject** - **Any research-related concerns or complaints**
Research Billing	**<u>Phone</u>: XXX-XXX-XXXX**	- **Billing / Insurance Questions**

16. Summary and Enrollment Signatures

You have been asked to take part in a research study, at (Name removed)Clinic. The information about this study has been provided to you to inform you about the nature of this IRB approved study.

- I have read the whole consent form, and all of my questions have been answered to my satisfaction.
- I know that joining the study is voluntary and I agree to join the study.
- I know enough about the purpose, methods, risks, and possible benefits of the study to decide that I want to join.
- I know that I can call the investigator and research staff at any time with any new questions or to tell them about side effects.
- I may withdraw from the study at any time.

Please sign and date to show that you have read all of the above guidelines. Please do not sign unless you have read this entire consent form. If you do not want to sign, you don't have to, but if you don't you cannot participate in this research study.

_____ _____ _____

(Date / Time) (Printed Name of Participant) (Clinic Number)

_____

(Signature of Participant)

_____ _____

(Date / Time) (Printed Name of Individual Obtaining Consent)

_____

(Signature of Individual Obtaining Consent)

Appendix H. Recruitment Notice

Looking for Study Participants!

For a research study examining:

Inpatient Patient Handling Practices

If you are a Registered Nurse, Licensed Practical Nurse or Nursing Assistant and you work on Unit A (Rehabilitation) or B (Neurology) at (Name Removed) Hospital and you are interested in participating or would like more information, please contact:

Hans-Peter de Ruiter, RN, MS, PhD(c) – Principal Investigator
Doctoral Candidate
University of Minnesota

$75 remuneration will be offered

Appendix I. Recruitment Email

Dear Station A Caregiver,

I will be performing a research study on several units, including station A (rehabilitation) looking at how caregivers lift and move patients. The purpose of this study is to understand the everyday practice of caregivers on a rehabilitation unit.

I am looking for 8 caregivers (RN, LPN and CNA) who are willing to have me "shadow" them for approximately ½ a shift and are willing to help me understand why they practice as they do. I would like to observe care givers on the day, evening and nightshifts including the weekends.

A remuneration of $75.00 will be offered as compensation for your participation.

If you are a Registered Nurse, Licensed Practical Nurse or Nursing Assistant, work on Unit A, and are interested in participating, or would like more information, please contact me by replying to this email or by using the following contact information:

Hans-Peter de Ruiter, RN, MS, PhD(c) – Principal Investigator
Doctoral Candidate
University of Minnesota

Appendix J. Letter of Support – Hospital I

Hans-Peter de Ruiter RN, MS, PhD (c)
University of Minnesota School of Nursing
Weaver Densford Hall 5-140
308 Harvard Street S.E.
Minneapolis, MN 55455

September 26, 2007

Dear Hans-Peter,

I was very excited to hear about your interest in performing your dissertation research at l. Your study "To Lift or Not to Lift: an Institutional Ethnography of Patient Handling" examines important issues and your findings will be of interest to our hospital.

After you obtain IRB approval, I support you observing caregivers on the Neurology/Spine and Rehabilitation units and will also make institutional texts that pertain to safe patient handling such as practice guidelines, educational material, and policies available for your analysis.

Looking forward to supporting your research,

Sincerely,

Appendix K. Letter of Support – Hospital II

Department of Nursing

October 18, 2007

Hans-Peter de Ruiter RN, MS, PhD (c)
University of Minnesota School of Nursing
Weaver Densford Hall 5-140
308 Harvard Street S.E.
Minneapolis, MN 55455

Dear Hans-Peter,

I was very excited to hear about your interest in performing your dissertation research at
al. Your study "To Lift or Not to Lift: an Institutional Ethnography of
Patient Handling examines important issues and your findings will be of interest to our
hospital.

After you obtain I val, I support you observing caregivers on the
Neurology/Spine and Rehabilitation units and will also make institutional texts that
pertain to safe patient handling such as practice guidelines and educational materials for
your analysis. We ask that you do not share these outside

Please contac N who will assist you with the next steps. As we
discussed, this will need to be approved through the Nursing Research Committee and the
nstitutional Review Board prior to proceeding.

Looking forward to supporting your research.

Sincerely,

TABLES

Summary of Participant Demographics

Table 1. Participants per Unit

Unit	Number of Participants
Neurology 1	8
Neurology 2	8
Rehabilitation 1	8
Rehabilitation 2	8

Table 2. Gender Distribution

Gender	Number of Participants
Female	24
Male	8

Table 3. Job Category Distribution

Job Category	Number of Participants
Registered Nurse	23
Nursing Assistant	9

Table 4. Shift Distribution

Shift	Number of Participants
Day (between 7am – 3:30 pm)	11
Evening (between 3:30 pm - 11:30 pm)	11
Nights (between 11:30 pm – 7:30 am)	10

Table 5. Age Distribution

Age	Number of Participants
< 24 years of age	7
24 – 39	13
40 - 59	9
60 +	3

Table 6. Years of Experience as Caregiver

Years of Experience	Number of Participants
< 1 years	3
1 – 3 years	9
4 – 10	10
11 – 20	7
21 +	3

Table 7. Past MSI injuries

Injury	Number of Participants
Yes	11
No	21
Injury Reported	7
Not Reported	4

FIGURES

Figure 3.1. Examples of Local Institutional Texts

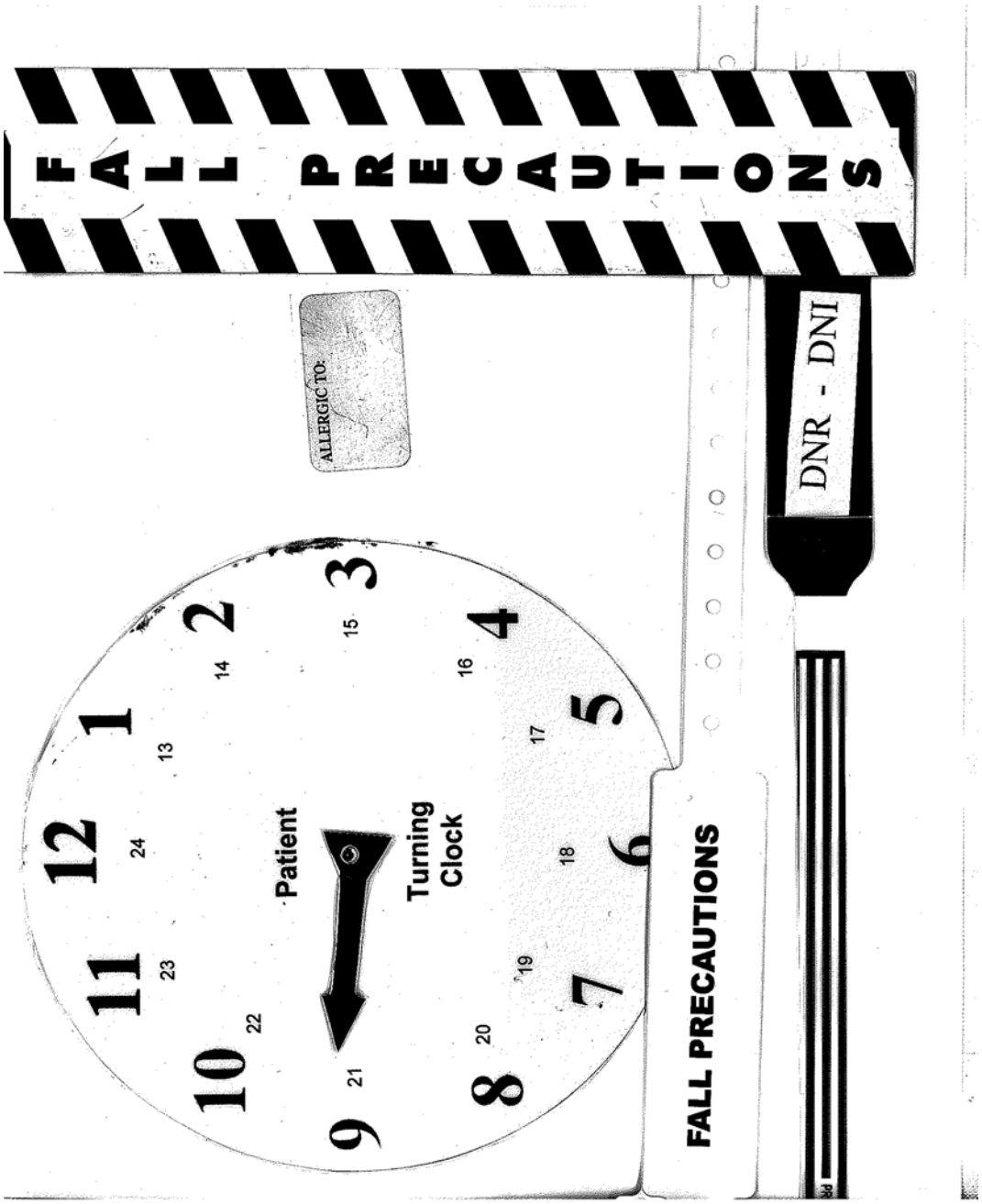


Figure 7.1. The everyday care delivery cycle.

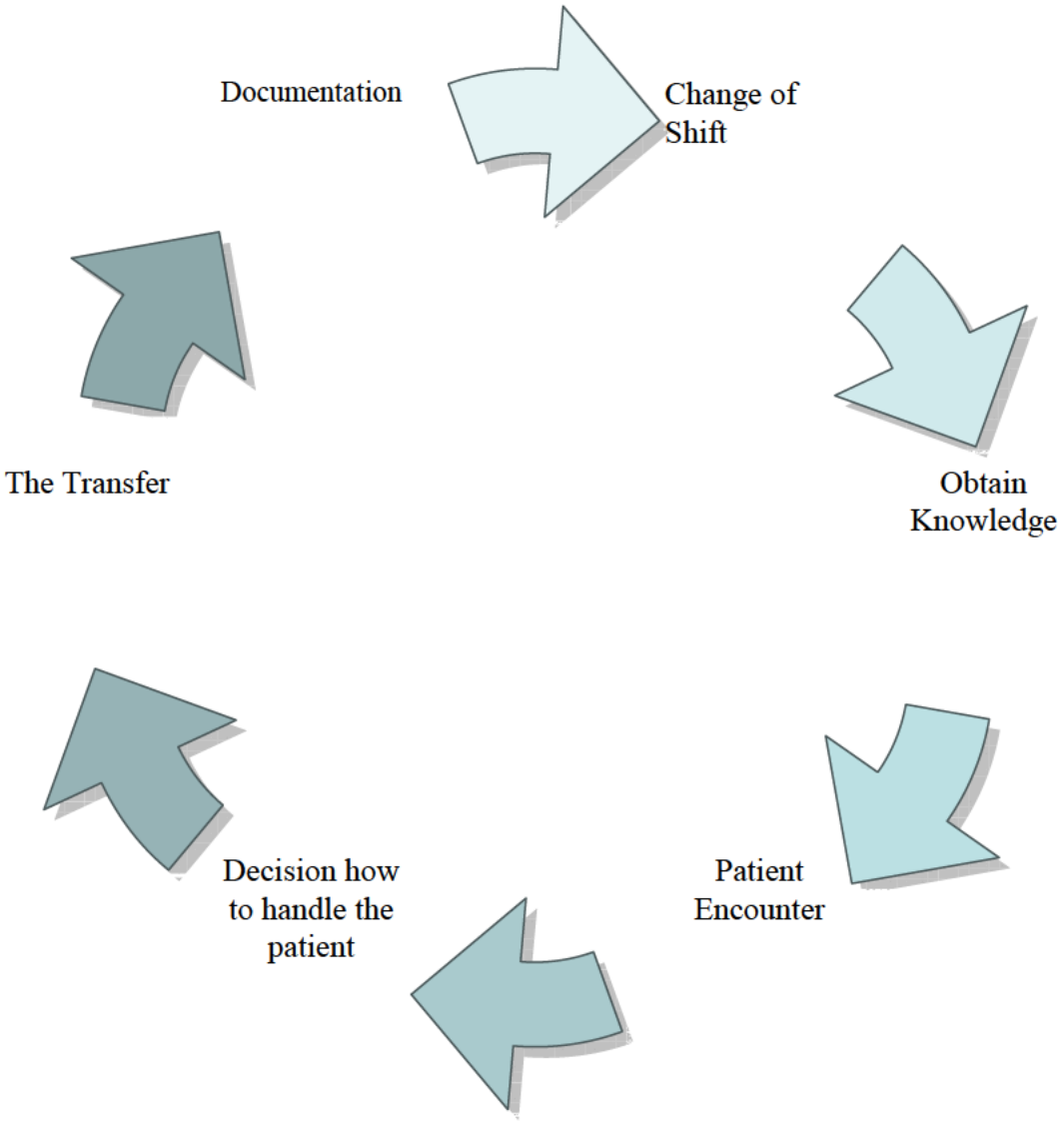
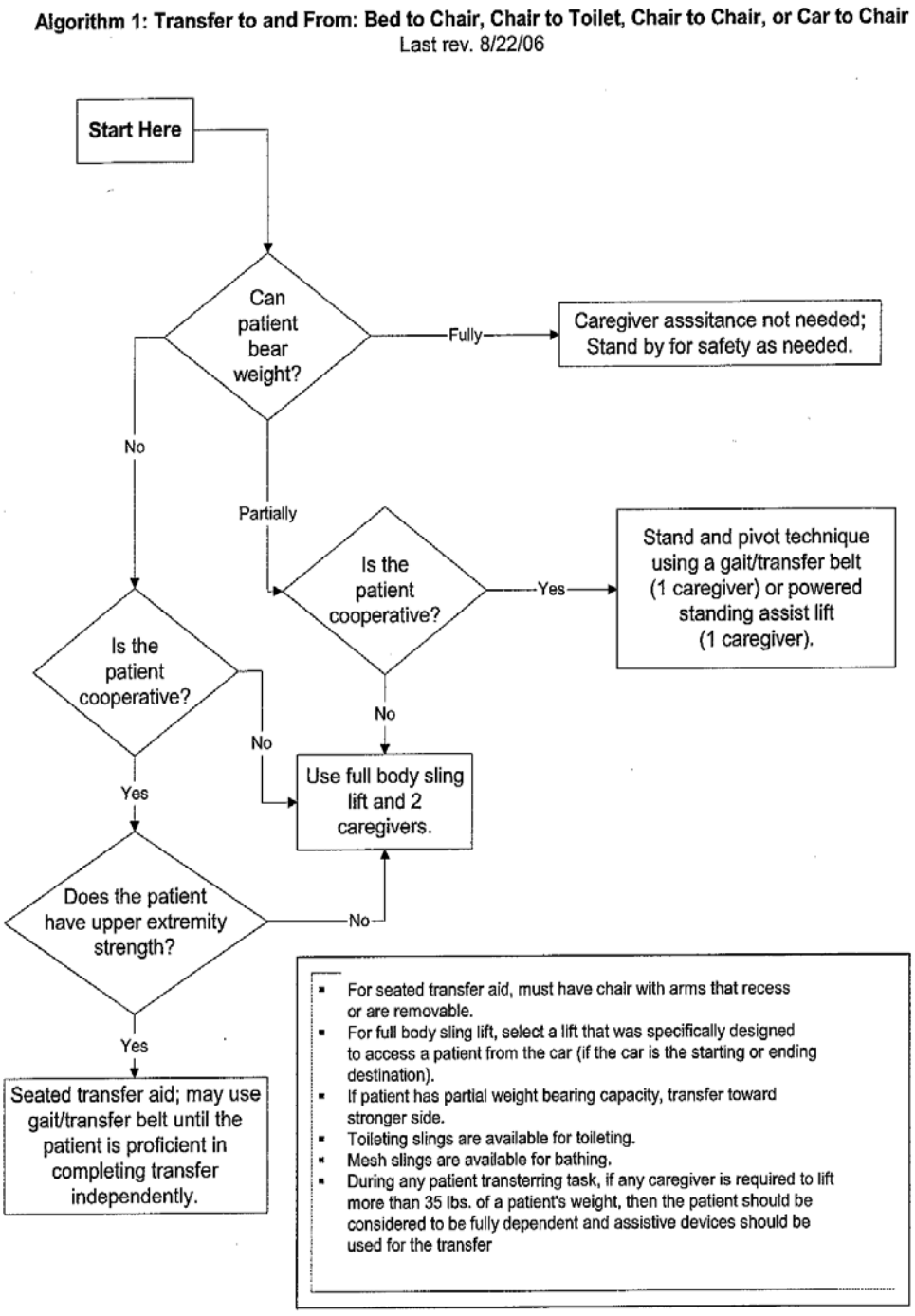


Figure 7.2. Theoretical algorithm of patient lifting on which education is based.



From: Safe Patient Handling Algorithms, VA Patient Safety Center, Tampa FL 2006.

Figure 7.3. Excerpts from Minnesota Safe Patient Handling Law (Sections 182.6551 to 182.6553 Minnesota Statutes)

Subd. 3. **Safe patient handling.** "Safe patient handling" means a process, based on scientific evidence on causes of injuries, that uses safe patient handling equipment rather than people to transfer, move, and reposition patients in all health care facilities to reduce workplace injuries. This process also reduces the risk of injury to patients.

Subdivision 1. **Safe patient handling program required.** (a) By July 1, 2008, every licensed health care facility in the state shall adopt a written safe patient handling policy establishing the facility's plan to achieve by January 1, 2011, the goal of minimizing manual lifting of patients by nurses and other direct patient care workers by utilizing safe patient handling equipment.

(3) initial and ongoing training of nurses and other direct patient care workers on the use of this equipment;

Subd. 5. **Training materials.** The commissioner shall make training materials on implementation of this section available to all health care facilities at no cost as part of the training and education duties of the commissioner under section 182.673.

Figure 7.4. Example of Patient Lifting Education

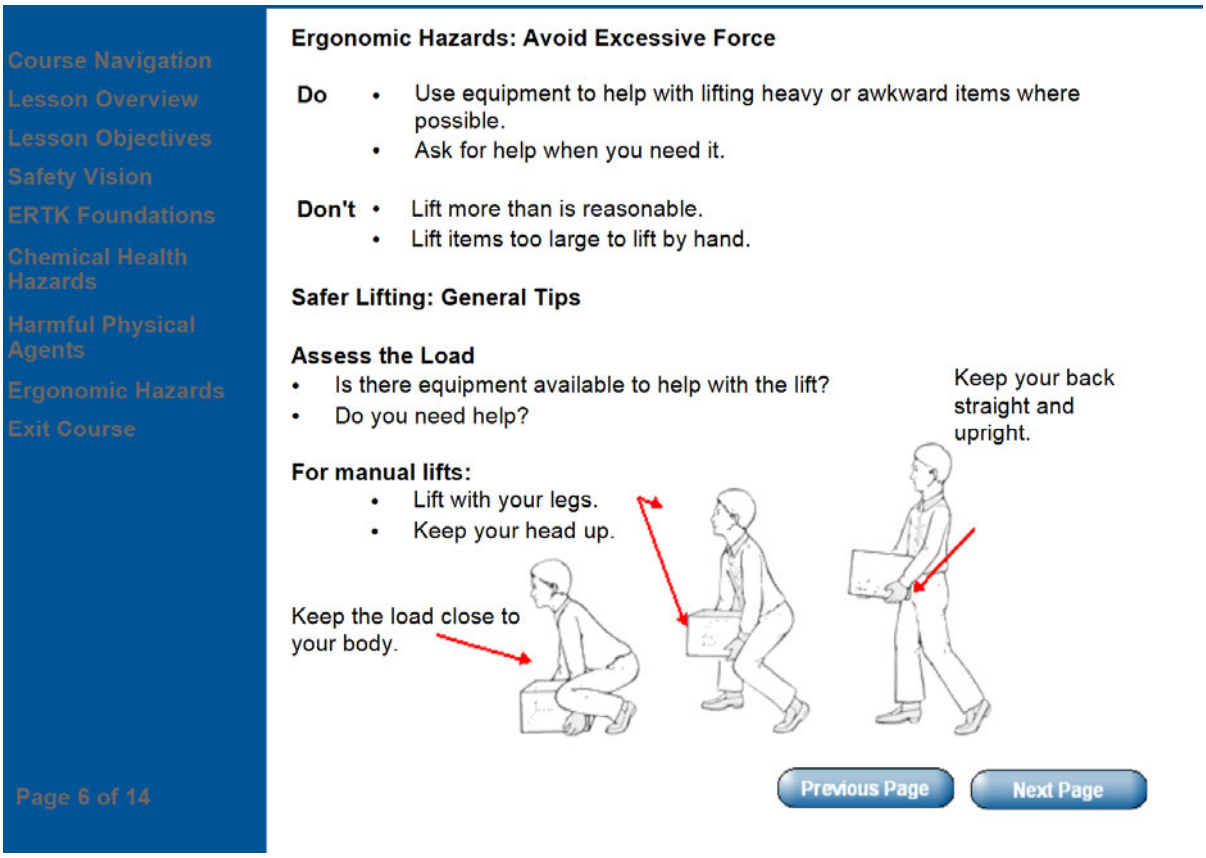
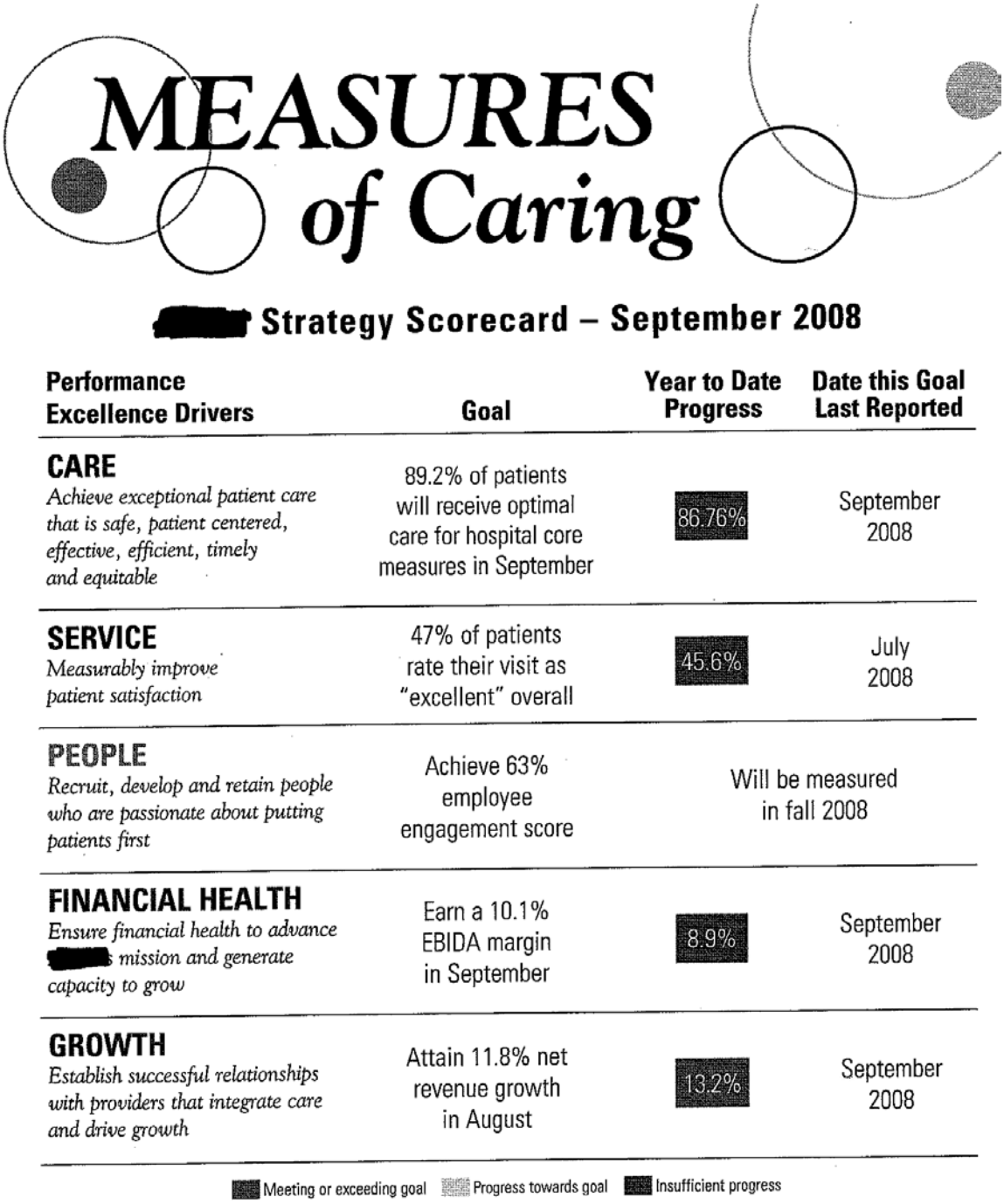


Figure 7.5. Organizational Strategy Scorecard



MEASURES of Caring

[redacted] Strategy Scorecard – September 2008

Performance Excellence Drivers	Goal	Year to Date Progress	Date this Goal Last Reported
CARE *Achieve exceptional patient care that is safe, patient centered, effective, efficient, timely and equitable*	89.2% of patients will receive optimal care for hospital core measures in September	86.76%	September 2008
SERVICE *Measurably improve patient satisfaction*	47% of patients rate their visit as "excellent" overall	45.6%	July 2008
PEOPLE *Recruit, develop and retain people who are passionate about putting patients first*	Achieve 63% employee engagement score	Will be measured in fall 2008	
FINANCIAL HEALTH *Ensure financial health to advance [redacted]'s mission and generate capacity to grow*	Earn a 10.1% EBIDA margin in September	8.9%	September 2008
GROWTH *Establish successful relationships with providers that integrate care and drive growth*	Attain 11.8% net revenue growth in August	13.2%	September 2008

Meeting or exceeding goal Progress towards goal Insufficient progress

Figure 7.6. Hospital Orientation Objectives

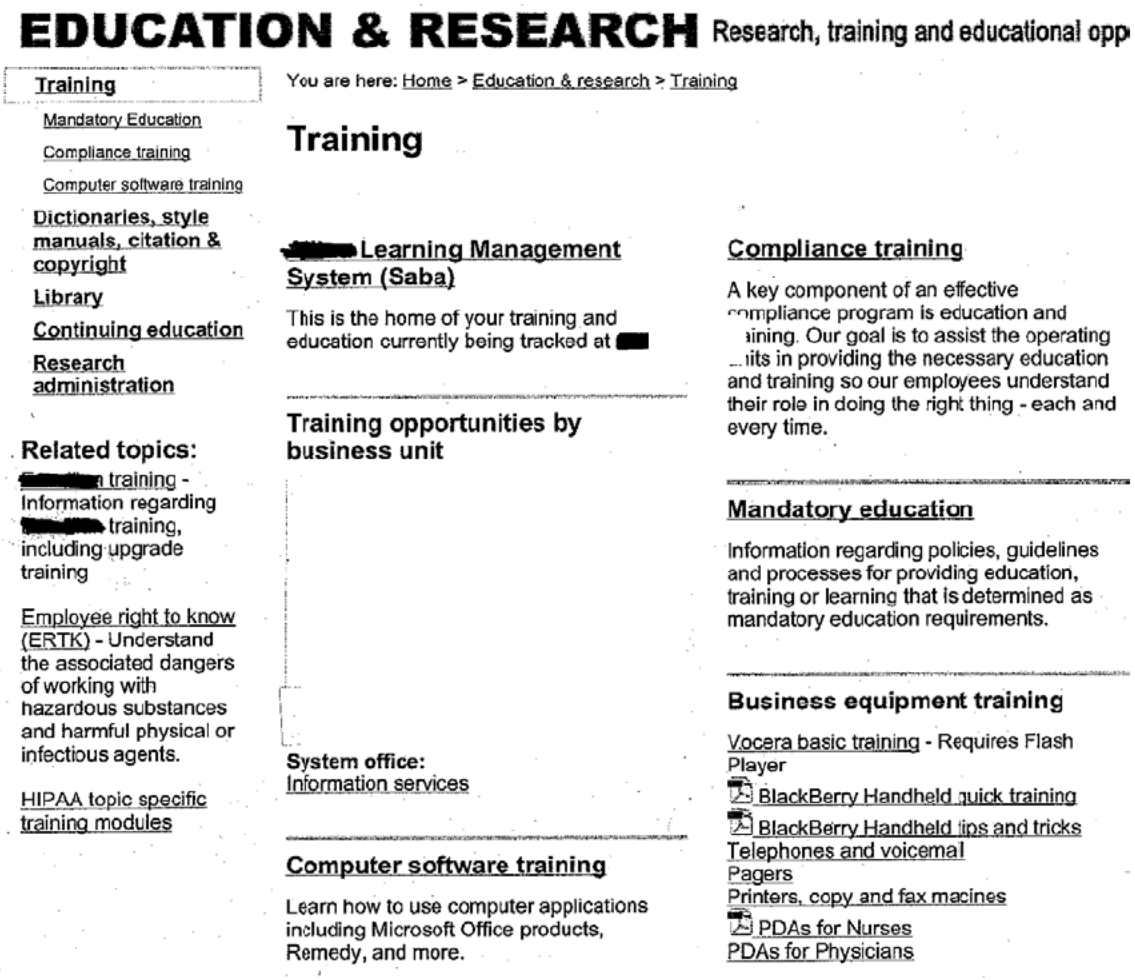
2008 RN Orientation Schedule

Objectives of Nursing Orientation

Upon completion of nursing orientation, the employee should be able to:

1. Relate the nursing philosophies of xxxx Hospital as the basis for patient care.
2. Differentiate roles and responsibilities of various members of the nursing department.
3. Differentiate own responsibilities and job performance standards from other members of the health care team.
4. Identify/utilize appropriate support persons as resources for enhancing patient care.
5. Demonstrate/describe specific nursing skills based on hospital policies/procedures.
6. Utilize the nursing process as a framework for patient care.
7. Document patient care provided and patient response.
8. Provide specific patient teaching and discharge planning to meet patient/family individual needs.
9. Integrate safety measures into patient care.
10. Describe unit specific patient populations.
11. Locate supplies/equipment necessary to perform nursing care.
12. Describe the patient care unit's care delivery system.
13. Incorporate psychosocial and pathophysiological knowledge of defined patient population into a beginning professional level of care.
14. Organize, prioritize, and provide care for an average patient assignment on the patient care unit.
15. Begin the process of professional socialization.

Figure 7.7. Annual Competencies Website



EDUCATION & RESEARCH Research, training and educational opp

Training

Mandatory Education

Compliance training

Computer software training

Dictionaries, style manuals, citation & copyright

Library

Continuing education

Research administration

Related topics:

[redacted] training - Information regarding [redacted] training, including upgrade training

Employee right to know (ERTK) - Understand the associated dangers of working with hazardous substances and harmful physical or infectious agents.

HIPAA topic specific training modules

You are here: Home > Education & research > Training

Training

[redacted] Learning Management System (Saba)

This is the home of your training and education currently being tracked at [redacted]

Training opportunities by business unit

System office:
Information services

Computer software training

Learn how to use computer applications including Microsoft Office products, Remedy, and more.

Compliance training

A key component of an effective compliance program is education and training. Our goal is to assist the operating units in providing the necessary education and training so our employees understand their role in doing the right thing - each and every time.

Mandatory education

Information regarding policies, guidelines and processes for providing education, training or learning that is determined as mandatory education requirements.

Business equipment training

Vocera basic training - Requires Flash Player
BlackBerry Handheld quick training
BlackBerry Handheld tips and tricks
Telephones and voicemail
Pagers
Printers, copy and fax macines
PDAs for Nurses
PDAs for Physicians

Figure 7.8. Annual ERTK Competency

[redacted] Safe Patient Moving Policy states:

When patients receive care at [redacted] Hospitals & Clinics and require assistance from employees to move (e.g., assisted transferring, lifting or reposition), that assistance is provided in a manner that is safe for both the patient and the employee.

Specifically, mechanical lifting equipment and/or other approved patient moving aids should be used in **all** circumstances when lifting/moving patients except when absolutely necessary, such as a medical emergency or as part of the patient's care plan.

If you are a caregiver, you will receive additional training on this topic. For an overview of Safe Patient moving at [redacted] see this slide show on the [redacted]
(When the presentation opens, click on the slide when you're ready to move ahead. Close the presentation (click the X in the upper-right corner of the window) to return to this course.

Previous Page Next Page

Figure 7.9. *Excerpts of the Minnesota Bill of Rights*

Minnesota Patients' Bill of Rights

Legislative Intent

It is the intent of the Legislature and the purpose of this statement to promote the interests and well-being of the patients of health care facilities. No health care facility may require a patient to waive these rights as a condition of admission to the facility. Any guardian or conservator of a patient or, in the absence of a guardian or conservator, an interested person, may seek enforcement of these rights on behalf of a patient. An interested person may also seek enforcement of these rights on behalf of a patient who has a guardian or conservator through administrative agencies or in probate court or county court having jurisdiction over guardianships and conservatorships. Pending the outcome of an enforcement proceeding the health care facility may, in good faith, comply with the instructions of a guardian or conservator. It is the intent of this section that every patient's civil and religious liberties, including the right to independent personal decisions and knowledge of available choices, shall not be infringed and that the facility shall encourage and assist in the fullest possible exercise of these rights.

2. Courteous Treatment
Patients have the right to be treated with courtesy and respect for their individuality by employees of or persons providing service in a health care facility.

3. Appropriate Health Care
Patients shall have the right to appropriate medical and personal care based on individual needs. This right is limited where the service is not reimbursable by public or private resources.

7. Participation in Planning Treatment

Notification of Family Members:

(a) Patients shall have the right to participate in the planning of their health care. This right includes the opportunity to discuss treatment and alternatives with individual caregivers, the opportunity to request and participate in formal care conferences, and the right to include a family member or other chosen representative, or both. In the event that the patient cannot be present, a family member or other representative chosen by the patient may be included in such conferences. A chosen representative may include a doula of the patient's choice.

11. Freedom From Maltreatment
Patients shall be free from maltreatment as defined in the Vulnerable Adults Protection Act. AMaltreatment@ means conduct described in Section 626.5572, Subdivision 15, or the intentional and nontherapeutic infliction of physical pain or injury, or any persistent course of conduct

Figure 7.10. Institutional Education – Excerpts of patient Fall Education

III. Individual Interventions for High Fall-Risk Patients

A. All High Fall-Risk Patients

There are certain interventions that should be done for all high fall-risk patients. These include:

1. *High fall-risk room set up (see photo, p. 60)*
2. *Medication review - taking into account risks specific to the patient, such as balance impairment and pain*
3. *"Falling star" identification program (see CD-ROM for Powerpoint)*

B. Fall Frequently

1. *Using hip protectors to prevent hip fractures*
2. *Refer to Rehabilitation Therapy for further evaluation and implementing their recommendations*

C. Incontinence/Nocturia

For patients who experience incontinence, nocturia or urgency, there are some things that can be done.

1. *Individualized toileting schedule can be initiated (See CD-ROM for an example toileting schedule)*
2. *Consider medication for reducing urgency*

D. Dizziness/Vertigo

For patients with dizziness or vertigo it is important to monitor and treat orthostatic hypotension. Additionally, patients should be taught to rise slowly from bed to prevent fainting.

E. Fear of Falling

Generally, a fear of falling is the result of some balance or mobility issues. Patients with a fear of falling should have a balance/strength assessment done by a physical or occupational therapist. Additional interventions can include:

1. *Using hip protectors — especially if the patient is frail or at high risk of fracture*
2. *Lowering the bed to a very low position to reduce the distance the patient would fall while getting out of bed*

F. Gait/Mobility Problems

For patients who have gait or mobility problems there are several interventions:

1. *Have occupational therapy (OT) assess the environment and implement their recommendations*

   Often OT will recommend aids like transfer bars or raised toilet seats that are based on the individual needs of the patient.

2. *Have a physical therapist or occupational therapist assess the patient and implement recommendations*

   It is important that nursing staff comply with the exercise program because exercise programs have been shown to reduce falls as part of a multifaceted falls prevention program

Figure 7.11. Institutional Procedural Guideline on Pain Management (Excerpt)

Pain Management

Applicable Facilities

- Inpatient
- Hospital-based outpatient
- Outpatient

Purpose

To provide guidelines for effective pain education, screening, monitoring, and treatn

Definitions

Comfort Goal: Pain intensity number identified by the patient on a 0 to 10 numeric scale indicating his/her acceptable level of pain relief.

Inadequate Response to Pain Treatment: Pain that exceeds: (1) Patient comfort ; or (2) Pain reported greater than 4 on a 0-10 numeric scale.

Pain: An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.

Policy Statements

- All patients have the right to safe and effective pain management applied with respect to cognitive and physical abilities, culture, ethnicity, age and gender.
- Patient/family education may include, but is not limited to information including right of all patients to appropriate monitoring and management of pain, importa of effective pain management, how to use the pain intensity scale if capable a set a comfort goal, how to describe the quality of pain (location, duration, frequency and character), pain management strategies, potential limitations, ri and side effects of pain treatment, and discharge instructions for pain manage and symptom control.
- Pain management begins when screening patients for pain in the inpatient anc outpatient settings.
- The patient self report is accepted as the most accurate measure of his/her cu level of pain. The patient comfort goal is used to evaluate the effectiveness of management interventions.
- When pain is identified, or with nonverbal patients or patients unable to self re standardized tools and methods are used (see Table 1).
- Ongoing assessment of pain includes the process of collecting and evaluating regarding the patient's pain intensity or likely presence of pain, frequency, loca duration, onset, character, radiation, precipitating and relieving factors, comfor goal, cultural aspects of pain, response to current therapy, and the effects of p on quality of life and functioning.
- Patients are provided analgesia per an authorized prescriber's orders. If the or are not adequate to meet the patient's comfort goal or represent an inadequat response to pain contact the primary service.
- For complex pain management concerns there are additional expert clinical resources such as the Inpatient Pain Service, pharmacists and clinical nurse

Figure 7.12. Joint Commission Accreditation of Healthcare Organization – National Patient Safety Goals (NPSG)

The Joint Commission

Standards Improvement Initiative (SII)
Chapter Outline

Chapter: National Patient Safety Goals (NPSG)
Program: Hospital

I. Goal 1 – Improve the accuracy of patient identification.
   A. Use of Two Patient Identifiers (revised NPSG.01.01.01)
   B. Not Applicable to Hospital (revised NPSG.01.02.01)
   C. Eliminating Transfusion Errors (revised NPSG.01.03.01)

II. Goal 2 – Improve the effectiveness of communication among caregivers.
   A. Reading Back Verbal Orders (revised NPSG.02.01.01)
   B. Creating a List of Abbreviations Not to Use (revised NPSG.02.02.01)
   C. Timely Reporting of Critical Tests and Critical Results (revised NPSG.02.03.01)
   D. Not Applicable
   E. Managing Hand–Off Communications (revised NPSG.02.05.01)

III. Goal 3 – Improve the safety of using medications.
   A. Not Applicable
   B. Not Applicable
   C. Managing Look Alike, Sound Alike Medications (revised NPSG.03.03.01)
   D. Labeling Medications (revised NPSG.03.04.01)
   E. Reducing Harm from Anticoagulation Therapy (revised NPSG.03.05.01)

IV. Goal 4 – Not Applicable
V. Goal 5 – Not Applicable
VI. Goal 6 – Not Applicable

VII. Goal 7 – Reduce the risk of health care-associated infections.
   A. Meeting Hand Hygiene Guidelines (revised NPSG.07.01.01)
   B. Sentinel Events Resulting from Infection (revised NPSG.07.02.01)
   C. Preventing Multi-Drug Resistant Organism Infections (revised NPSG.07.03.01)
   D. Preventing Central-Line Associated Blood Stream Infections (revised NPSG.07.04.01)
   E. Preventing Surgical Site Infections (revised NPSG.07.05.01)

VIII. Goal 8 – Accurately and completely reconcile medications across the continuum of care
   A. Comparing Current and Newly Ordered Medications (revised NPSG.08.01.01)
   B. Communicating Medications to the Next Provider (revised NPSG.08.02.01)
   C. Providing a Reconciled Medication List to the Patient (revised NPSG.08.03.01)
   D. Settings in Which Medications are Minimally Used (revised NPSG.08.04.01)

IX. Goal 9 – Reduce the risk of patient harm resulting from falls.
   A. Implementing a Fall Reduction Program (revised NPSG.09.02.01)

X. Goal 10 -- Reduce the risk of influenza and pneumococcal disease in institutionalized older adults.
   A. Not Applicable to Hospital (revised NPSG.10.01.01)
   B. Not Applicable to Hospital (revised NPSG.10.02.01)

C. Not Applicable to Hospital (revised NPSG.10.03.01)

XI. Goal 11 – Reduce the risk of surgical fires.
A. Not Applicable to Hospital (revised NPSG.11.01.01)

XII. Goal 12 Not Applicable

XIII. Goal 13 – Encourage patients' active involvement in their own care as a patient safety strategy.
A. Patient and Family Reporting of Safety Concerns (revised NPSG.13.01.01)

XIV. Goal 14 – Prevent health care associated pressure ulcers (decubitus ulcers).
A. Not Applicable to Hospital (revised NPSG.14.01.01)

XV. Goal 15 – The organization identifies safety risks inherent in its patient population.
A. Identifying Individuals at Risk for Suicide (revised NPSG.15.01.01)
B. Not Applicable to Hospital (revised NPSG.15.02.01)

XVI. Goal 16 – Improve recognition and response to changes in a patient's condition.
A. Requesting Assistance for a Patient with a Worsening Condition (revised NPSG.16.01.01)

Universal Protocol

I. Universal Protocol
A. Conducting a Pre-Procedure Verification Process (revised UP.01.01.01)
B. Marking the Procedure Site (revised UP.01.02.01)
C. Performing a Time-Out (revised UP.01.03.01)

Figure 7.13. Joint Commission of Accreditation of Healthcare Organizations: History and tracking report 2008 to 2009

History Tracking Report: 2009 to 2008 Requirements

Accreditation Program: Hospital
Chapter: National Patient Safety Goals

Accreditation Program: Hospital	Chapter: National Patient Safety Goals
NPSG.09.02.01 **2009 Requirement Text:** The [organization] implements a fall reduction program that includes an evaluation of the effectiveness of the program.	**Requirement 9B** **2008 Requirement Text:** Implement a fall reduction program including an evaluation of the effectiveness of the program.
NPSG.09.02.01 **2009 EP:** 1 **2009 EP Text:** The hospital establishes a fall reduction program.	**Requirement 9B** **2008 EP:** 1 **2008 EP Text:** **Revision Code:** Retain 1. The organization establishes a fall reduction program.
NPSG.09.02.01 **2009 EP:** 2 **2009 EP Text:** The fall reduction program includes an evaluation appropriate to the patient population, settings, and services provided.	**Requirement 9B** **2008 EP:** 2 **2008 EP Text:** **Revision Code:** Retain 2. The fall reduction program includes an evaluation as appropriate to the {jc}patient{/1} population, settings and services provided.
NPSG.09.02.01 **2009 EP:** 3 **2009 EP Text:** The fall reduction program includes interventions to reduce the patient's fall risk factors.	**Requirement 9B** **2008 EP:** 3 **2008 EP Text:** **Revision Code:** Retain 3. The fall reduction program includes interventions to reduce the {jc}patient{/1}'s fall risk factors.
NPSG.09.02.01 **2009 EP:** 4 **2009 EP Text:** Staff receive education and training for the fall reduction program.	**Requirement 9B** **2008 EP:** 4 **2008 EP Text:** **Revision Code:** Retain 4. Staff receive education and training for the fall reduction program
NPSG.09.02.01 **2009 EP:** 5 **2009 EP Text:** The hospital educates the patient, and their family as needed, on the fall reduction program and any individualized fall reduction strategies.	**Requirement 9B** **2008 EP:** 5 **2008 EP Text:** **Revision Code:** Retain 5. The {jc}patient{/1} and {jc}patient{/1}'s family is educated on the fall reduction program and any individualized fall reduction strategies.
NPSG.09.02.01 **2009 EP:** 6 **2009 EP Text:** The hospital evaluates the fall reduction program to determine the effectiveness of the program. Note: Outcome indicators such as decreased number of falls and decreased number and severity of fall-related injuries could be used.	**Requirement 9B** **2008 EP:** 6 **2008 EP Text:** **Revision Code:** Retain 6. The fall reduction program is evaluated to determine the effectiveness of the program. (Outcome indicators such as decreased number of falls and decreased number and severity of fall-related injuries could be used.)

Figure 7.14. Nursing Assistant Assignment Sheet

[redacted]Nursing Assistant Assignment Sheet

NA____________________ Date__________ Charge [redacted]

H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation
H80	Nurse	Diet	Activity/Turns/Walks	Cares	Wt	I & O	Temp	Misc.	Safety (circle all that apply)	
Patient	Diagnosis			Bed Bath Set up w/ assist Shower PM cares Independent		I_______ O_______	1 _____ 2 _____		Fall Risk, Aspiration Prec., Confused, Tabs, Bed Alarm, Restraints	Foley Drain DNR Isolation

Days

*Temps (notify RN if > 38.0)
*Answer call lights
*Assist with meal set-up
*Pt hygiene
*Stock gloves, linens, towels, lift/slip sheets, and alcohol foam in each room
*Empty linen bag as needed
*Ensure Tab/Bed alarms are on and fall risk identifiers are visible in appropriate rooms
*Empty foley/drains at 1400; record I&O on appropriate sheets
*Pass fresh water at 1400
*Maintain station neatness
*Remain on floor and on vocera until 1530

Evenings

*Temps (notify RN if > 38.0)
*Answer call lights
*Assist with meal set-up
*Stock gloves, linens, towels, lift/slip sheets, and alcohol foam in each room
*Empty linen bag as needed
*Pt HS cares
*Ensure Tab/Bed alarms are on and fall risk identifiers are visible in appropriate rooms
*Remove and replace I&O and charge sheets in all rooms
*Empty foley/drains at 2200; record I&O on appropriate sheets
*Pass fresh water at 2200
*Maintain station neatness
*Remain on floor and on vocera until 2330

Nights

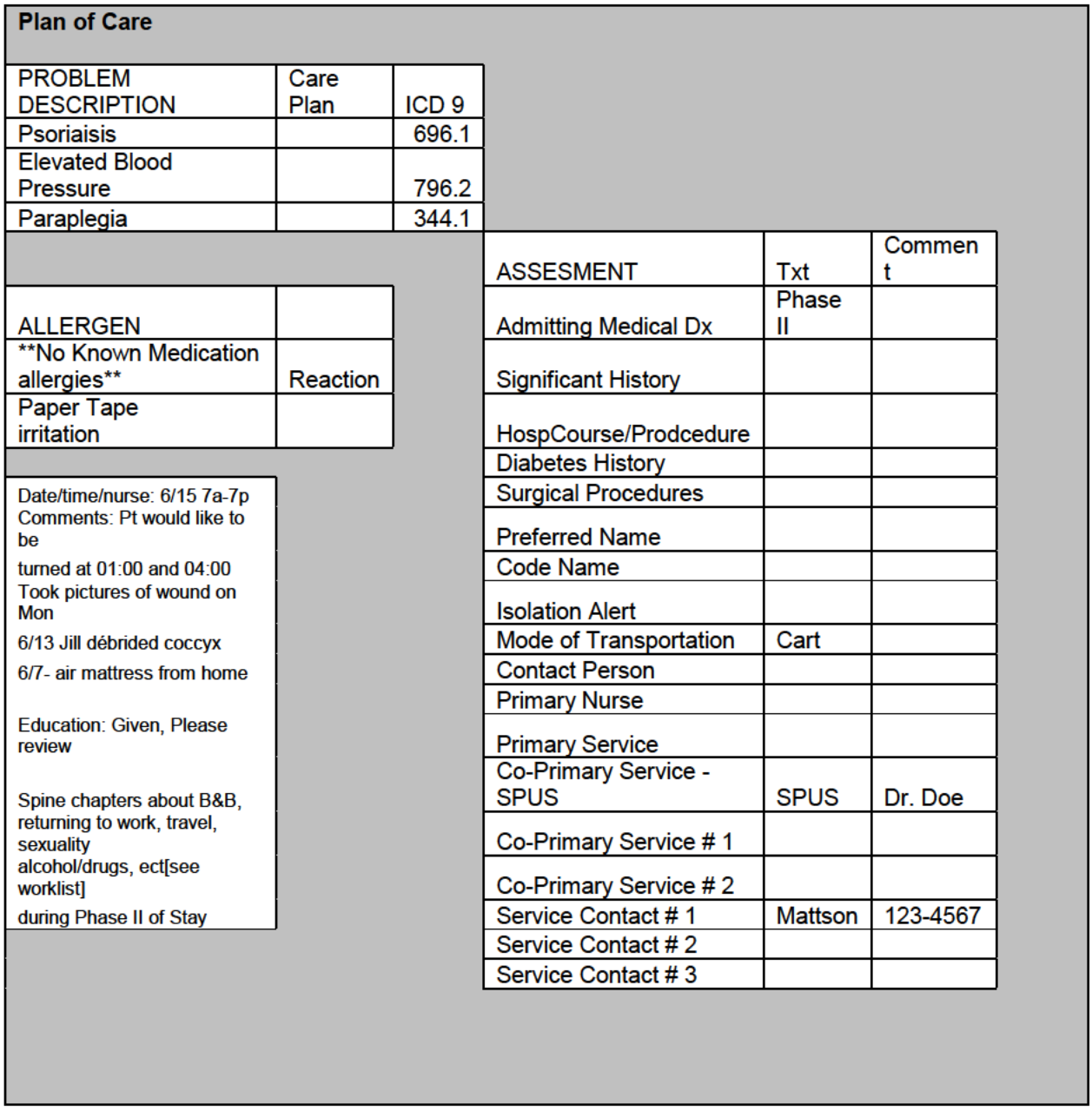
*Answer call lights
*Empty linen bag as needed
*Assure room closets are stocked
*Stock syringes, needles, alcohol wipes in pyxis and med prep areas
*Stock blood draw kits
*QC checks on glucose meters
*Ensure Tab/Bed alarms are on and fall risk identifiers are visible in appropriate rooms
*Stock and straighten the fall prevention bins in each PCC
*Empty foley/drains at 0600; record I&O on appropriate sheets
*Pass fresh water at 0600
*Maintain station neatness
*Remain on floor and on vocera until 0730

*Please highlight or initial all completed tasks and return to clipboard by 1500/2300/0700.

Figure 7.15. Documentation of Patient Handling in the Electronic Patient Record

	13-May-08 12:15	13-May-08 11:35	13-May-08 10:49	13-May-08 8:20	13-May-08 6:47	13-May-08 5:00	13-May-08 4:20	13-May-08 2:15
ACTIVITY HOME				Not Met				
-Activ/Mobil Assess								
-Mobil Level								
-HOB (degrees)								
-Bed Position								
-Turn New Position						Right Side	Pt Refused	Le Side
-Immobil Intervention								
-Immob Interv Status								
-Special Bed								
-Bed Rotation								
-Special Bed Temp (C)								
-Cooling Device								
-Warming device								
-Activity Type	wc/pt/prope	RetrnBed	WCPtProp	Commode	Toilet	Reposition	Asleep	Reposition
-Activity Assist	x1	x1	x1	x2	x1	x1		x1
-ActivityAssistDevice	SlidingBd	SlidingBd	SlidingBd	SlidingBd	SlidingBd	Drawsheet		Drawsheet
-Activity Tolerated	Well	Well	Well	Well	Well	Well		Well
-Ambulation Distance								
-AmbulContactRequired								
-FIM Locomation:Wa k				NotOccur				
-WheelChairDistanceFt				> 150 ft				
-TransfrContactRequir								
-FIM Locomotion W/C				ModIndep				
-FIM TransferBedChrWC				MinAssist				
-FIM Transfers:Toilet				MinAssist				
-FIM Transfers: Shower				MinAssist				
-FIM Transfers: Tub				Not Occur				
-Abdominal Binder								
Ortho Device								

Figure 7.16. Nurse to Nurse Communication Sheet in the Electronic Patient Record



Plan of Care

PROBLEM DESCRIPTION	Care Plan	ICD 9
Psoriaisis		696.1
Elevated Blood Pressure		796.2
Paraplegia		344.1

ALLERGEN	
No Known Medication allergies	Reaction
Paper Tape irritation	

Date/time/nurse: 6/15 7a-7p
Comments: Pt would like to be
turned at 01:00 and 04:00
Took pictures of wound on Mon
6/13 Jill débrided coccyx
6/7- air mattress from home

Education: Given, Please review

Spine chapters about B&B, returning to work, travel, sexuality
alcohol/drugs, ect[see worklist]
during Phase II of Stay

ASSESMENT	Txt	Comment
Admitting Medical Dx	Phase II	
Significant History		
HospCourse/Prodcedure		
Diabetes History		
Surgical Procedures		
Preferred Name		
Code Name		
Isolation Alert		
Mode of Transportation	Cart	
Contact Person		
Primary Nurse		
Primary Service		
Co-Primary Service - SPUS	SPUS	Dr. Doe
Co-Primary Service # 1		
Co-Primary Service # 2		
Service Contact # 1	Mattson	123-4567
Service Contact # 2		
Service Contact # 3		

Mobility/Transfer:Slide board x1. Careful not to slide his bottom over the wheel (keep it on the board). PT to work on approp w/c and seat cushion. Mapping has been done as outpatient due to skin issues. No sitting at 45 degree angle in bed! Has roho mattress overlay from home.

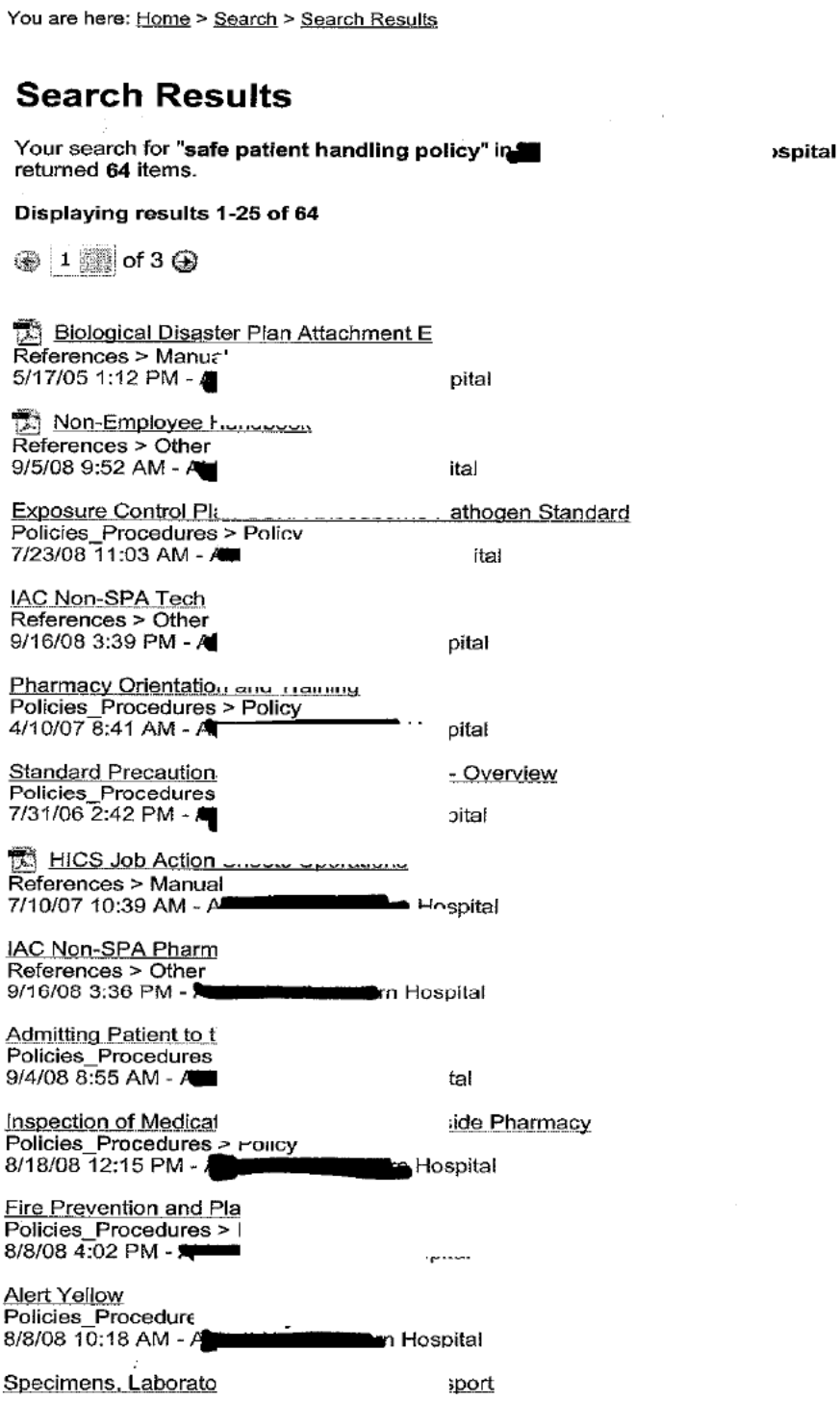
Shower/Bed Bath: SH-6/13 am

Safety: No issues.

Figure 7.17. Patient Fall Risk Assessment Scale

	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08	13-Aug-08
	12:13	11:33	10:47	8:18	6:45	5:00	4:20	2:15
ANX/COPING (R)								
- Anxiety/Coping				Not Met				
- Anxiety/Cope Assess								
- Agitated								
-Disoriented/Confused								
-Wandering Behavior								
-Impusive								
- FIM Social Interactn	Indep	Indep	Indep	Indep				
-Family Visiting	No	No	No	No				
-Patient Coping	Axious	Axious	Axious	Axious				
-Coping Techniques	Not Present	Not Present	Not Present	Not Present				
-Inf-Ped Anx/Coping	Act Listen	Act Listen	Act Listen	Act Listen				
- Inf-Ped Family Contact								
-Family/Infant Contact								
SAFETY								
- Safety Assesment				Met				
-Side Rails								
-Bed Exit								
-Safety Interventions								
-Safety Interven Loc								
-Safety other:								
HENDRICH FALL RISK								
-UTA-Fall Risk								
-ConfuDisorintimpuls				0				
-DepresionSymptoms				0				
-AlteredElimination				1				
-Dizziness/Vertigo				0				
-Gender				1				
-Antiepileptics				0				
-Benzodiazemines				0				
-GetUp&Go test				3				
-Fall Criteria				Risk				
-Fall Risk Score				5				
CIWA								
-Nausea and Vomiting								
-Tremor								
-Paroxysmal Sweats								
-Anxiety								
-Agitation								
-Auditory Distrurbance								

Figure 7.18. Institutional Intranet Policy Search using the term "Safe Patient Handling Policy"



You are here: Home > Search > Search Results

Search Results

Your search for **"safe patient handling policy"** in[redacted] ospital returned **64** items.

Displaying results 1-25 of 64

1 of 3

Biological Disaster Plan Attachment E
References > Manual
5/17/05 1:12 PM - A[redacted] pital

Non-Employee H[redacted]
References > Other
9/5/08 9:52 AM - A[redacted] ital

Exposure Control Pl[redacted] athogen Standard
Policies_Procedures > Policy
7/23/08 11:03 AM - A[redacted] ital

IAC Non-SPA Tech
References > Other
9/16/08 3:39 PM - A[redacted] pital

Pharmacy Orientatio[redacted]
Policies_Procedures > Policy
4/10/07 8:41 AM - A[redacted] pital

Standard Precaution[redacted] - Overview
Policies_Procedures
7/31/06 2:42 PM - A[redacted] pital

HICS Job Action [redacted]
References > Manual
7/10/07 10:39 AM - A[redacted] Hospital

IAC Non-SPA Pharm
References > Other
9/16/08 3:36 PM - [redacted]n Hospital

Admitting Patient to t
Policies_Procedures
9/4/08 8:55 AM - A[redacted] tal

Inspection of Medical[redacted] ide Pharmacy
Policies_Procedures > Policy
8/18/08 12:15 PM - A[redacted] Hospital

Fire Prevention and Pla
Policies_Procedures > I
8/8/08 4:02 PM - [redacted]

Alert Yellow
Policies_Procedure
8/8/08 10:18 AM - A[redacted]n Hospital

Specimens, Laborato[redacted] sport