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Sickle Cell Disease: A Quality Improvement Initiative for Emergency Department Providers

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SICKLE CELL DISEASE: A QUALITY IMPROVEMENT INITIATIVE
FOR EMERGENCY DEPARTMENT PROVIDERS

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THE GRADUATE COLLEGE

We recommend the doctoral project prepared under our supervision by

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Sickle Cell Disease: A Quality Improvement Initiative for Emergency Department Providers

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ABSTRACT

Sickle Cell Disease (SCD) is an incurable, chronic condition that results in a constellation of disorders, frequent emergency department (ED) visits, and repeated hospital admissions. Those affected often suffer from pain crisis, infection, acute chest syndrome, stroke, and multi-organ impairment and frequently do not receive adequate pain management during acute pain episodes because ED providers view them as drug seeking. The majority of patients with SCD are African-American and may be low income, uninsured, or on Medicaid. As a result, these demographics make ED under-treatment of pain in patients with SCD a health equity issue. This was a pre-experimental one group pre-test/post-test quality improvement project to evaluate the effectiveness of implementation of an evidence-based analgesic algorithm coupled with an intervention on practice change behavior towards patients with SCD. The intervention was an educational video and introduction of an evidence-based analgesic prescribing algorithm (ED-SCANS Decision 2). The outcome variables were provider perceptions (assessed by the Positive Provider Attitudes towards Sickle Cell Patients questionnaire) and levels of pain in SCD patients before and after the intervention. The results of this project indicated that there was a significant improvement in provider attitudes between the pre-test and post-test scores ($p < .001$). There was a significant difference ($p < .002$) between discharge LOP, with the LOP approximately 3 points lower post-intervention; indicating that the overall results of this QI study demonstrated positive outcomes (improved provider perceptions and improvement in discharge LOP) from the applied intervention.

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CHAPTER 1

INTRODUCTION

Background and Significance

Sickle Cell Disease (SCD) is an incurable, long-term condition that results in chronic manifestations of acute painful crises (vaso-occlusive crisis or VOC), frequent emergency department (ED) visits, and repeat hospital admissions. Those affected often suffer from pain crisis, infection, acute chest syndrome, stroke, and multi-organ impairment and often do not receive adequate pain management during acute pain episodes because ED providers view them as drug seeking. Because the majority of patients with SCD are African-American and may be low income or uninsured or have Medicaid, these demographics make ED under-treatment of pain in patients with SCD a health equity issue.

Problem Statement

Baptist Health Medical Center Little Rock Emergency Department (BHMC-LR) is one of the leading acute care facilities in Arkansas. From 2009-2011, the hospital instituted certain quality improvement initiatives, including the development and adaptation of treatment protocols for selected Diagnostic Related Groups (DRGs). However, SCD is not included in these protocols due to at least two possible reasons: 1) perceived physician resistance or reluctance to treat patients with SCD; or 2) a lack of current knowledge and awareness of the benefits of using an established protocol to identify and treat these patients upon their entrance into the ED setting.

Physicians play a vital role in coordinating care for SCD patients. Therefore, it is crucial these providers have a comprehensive knowledge base and a perspicacious ability

to think critically when treating these patients in the ED. Complications that characterize SCD disease presentations in the ED setting and recognition of the severity of VOC must be at the forefront of ED physicians' practices when providing care for SCD patients. These complications include pain that physicians may perceive as drug-seeking behavior, frequent visits to the ED, clinician and patient knowledge deficits, and SCD stigma (Tanabe, 2011). Identifying appropriate treatment modalities for SCD patients who present to the ED with VOC can decrease hospitalizations and re-admission rates, inevitably decreasing costs for the hospital system because more than 1,000 patients who suffer from SCD live in Arkansas. While the majority of these patients have taxpayer-funded insurance sources, the remainder has no insurance and place a major burden on Arkansas's health care system to provide unreimbursed care.

This Quality Improvement (QI) project had the potential to benefit the hospital with respect to a reduction in readmission rates related to SCD. This is important for cost containment, which is a major area of focus for hospitals. The Centers for Medicare and Medicaid Services (CMS) released the Inpatient Prospective Payment System (IPPS) in August 2011 as a structured framework to reduce hospital readmission rates through the Hospital Readmission Reduction Program (HRRP), which is slated to begin in 2013 (Lenz & Hardcastle, 2011). This program creates a system of penalties for hospitals that have high rates of readmission for specific diagnoses. The initial three diagnoses (heart attack, heart failure, and pneumonia) will be used to compare 30-day readmission rates, defined as "a patient being discharged to a non-acute setting and subsequently readmitted or admitted to another acute care hospital within thirty days of discharge" (Lenz &

Hardcastle, 2011, p.1) in 2012. By 2015, the diagnostic categories include chronic lung conditions, vascular diseases, and other diagnoses not identified to date.

Scope of the Problem

The conditions of SCD and VOC result in frequent hospital encounters, especially through the ED. There is evidence that ED providers and clinicians do not properly identify, treat, or manage care for SCD patients most likely due to misperceptions towards patients who suffer from this incurable disease (Ratanawongsa et al., 2009). Improper treatment of patients suffering from SCD results in re-hospitalizations with increased expenditures for the health care industry. This project assessed the effectiveness of a video intervention and the institution of an analgesic treatment protocol to promote change in the implementation of appropriate treatment for SCD patients treated at BHMC-LR ED.

Tanabe et al. (2010) conducted one of the first prospective, multisite, longitudinal cohort studies, using a learning collaborative model to evaluate analgesic management in the ED setting. More than 75% of patients had one to three repeat visits over one year, which will affect CMS reimbursement under the IPPS if SCD is added as a diagnosis, as repeat admissions will result in unpaid hospital charges, with concomitant increases in expenditures. Hospitals must implement standard and appropriate treatment of SCD patients with VOC not only to improve patient care, but also to improve reimbursement.

Patients who suffer from SCD often present to the ED due to VOC pain, which requires high dose opioids. If these patients are hesitant to seek treatment for their conditions, their risk of health detriment is increased. Instead, these patients require prompt assessment and intervention in order to interrupt this painful cycle. It is

imperative that providers respond appropriately to these patients, providing non-judgmental analgesic treatment. If patients who suffer from SCD/VOC receive optimal pain management and treatment in the ED, then these patients may be less likely to have frequent repeat admission rates. This will coincide with the HRRP by decreasing repeat ED visits and hospitalizations for SCD.

Purpose

The objective of this project was to improve current analgesia practices for SCD patients at (BHMC-LR ED. This QI project compared the pain control effectiveness of current analgesia practices for SCD patients at BHMC-LR ED with the effectiveness after implementation of an evidence-based analgesia support algorithm, coupled with an educational video shown to improve care for these patients.

Goals and Objectives

The goal of this project was to improve provider perceptions and actions related to care of patients with SCD. If provider perceptions are changed (Haywood et al., 2010), then practice behaviors may change, resulting in improved clinician attitudes, behaviors, and treatment for SCD patients who present to the ED. The providers will then use the analgesic treatment protocol in standard practice when treating these patients. A key strategy to reach this project goal was the implementation of an evidence-based analgesic management algorithm, thereby improving providers' attitudes and actions related to providing care and treatment to SCD patients in the ED.

This project's process objectives included the following:

- BHMC-LR ED physicians and nurses will be required to watch the intervention video;
- BHMC-LR ED physicians will be encouraged to use the ED-SCANS Decision Algorithm to guide analgesic prescribing for SCD patient encounters; and
- ED providers will change practice behaviors after the intervention when caring for patients with SCD/VOC.

This project's outcome objectives include the following:

- Adoption of a decision support tool (i.e., ED-SCANS Decision 2) to help support decision-making and treatment of SCD patients in the ED; and
- Improved analgesic care for patients with SCD/VOC.

Policy Implications

Based on the findings of this project, recommendations were made to BHMC-LR administration, the ED medical director, the ED supervisor, and the BHMC-LR interdisciplinary team regarding the importance of prompt triage and medical assessment of SCD patients who present to the ED. These patients require high dose analgesia, hydration, and other hemodynamic assessment parameters in order to prevent mortality, which can result from VOC. SCD is a global health problem and initiatives must be developed in order to decrease morbidity and mortality associated with this genetically linked, incurable disease. By providing prompt assessment and appropriate analgesia during VOC, repeat hospitalizations.

CHAPTER 2

THEORETICAL FRAMEWORK

Lewin's Change Management Model

Because of shortcomings in identification, treatment, and management of patients who suffer from SCD at BHMC-LR ED, the student implemented this QI project.

Lewin's Change Management Model (LCMM) was selected as the theoretical framework. In this model, Lewin identified three stages of change: unfreezing, changing, and refreezing (as cited in Buonocore, 2004, p. 1).

The first stage involves the identification of the occurrences that prompt the need for change. When all entities involved become a part of the identified need for change, then unified participation is possible. A motivation to enact change in current practice prompts the first stage (Buonocore, 2004). At BHMC-LR ED, the clinicians and social workers stated they were motivated to help identify measures that would improve ED treatment modalities for patients with SCD. Because of this motivation and a diagnosis of the problem in practice, then planning solutions fostered a stimulus for change in behavior (Buonocore, 2004).

The need for medical treatment for patients with SCD in Arkansas is increasing. These patients have no cure for their condition and must endure the status quo until treatments improve. Hospitals in Arkansas are working to stratify options for reducing costs within their system, but this is hindered by repeat ED encounters by SCD in VOC. The costs for treatment are often placed among charges that are considered unreimbursable. This disrupts efforts to reduce cost escalation within the hospital system. Providers are then burdened with repeat patient visits in the ED with the

assumption that these services will not be paid upon culmination of each repeat encounter. The first stage (unfreezing) provides a theoretical basis on how to reduce obstacles to change, which will likely interrupt the above described cycle, increasing the potential for success of this QI project. Stakeholders are more apt to participate in the proposed change if the benefits are described in the initial stages of the project.

The second stage, change, is the alteration of current practices (i.e., attitudes, behaviors, inherent belief patterns in these providers, and improper analgesic administration) to optimize improvement in patient outcomes in the BHMC-LR ED (Buonocore, 2004). Theoretical knowledge channeled with experience in both organizational (BHMC-LR) and patient needs enabled the adaption of Lewin's model to serve as a basis for "unfreezing" present behaviors and processes at BHMC-LR. This enabled a change to occur (the second stage of Lewin's model), thereby leading to a "refreezing" (the third stage of Lewin's model) of provider practice behavior and evidence-based treatment in this QI project. Refreezing involves maintenance of the implemented change. This QI project was designed to permanently improve provider practice attitudes and treatment behaviors towards SCD patients in the BHMC-LR ED.

Participation in this project was designed to permit the ED providers to claim a sense of ownership of the success of the project. Levasseur (2001) concluded that one key element in the unfreezing stage (to prevent project failure) is the eliciting of effective modes of communication at the stimulus phase in order to implement change so that all stakeholders are active participants involved in empowering the organizational success of the project's anticipated goal.

Patients and their families were also identified as stakeholders who will directly benefit from this project. The physicians involved identified existing biases which impede prompt diagnosis of patients who have SCD (with or without VOC) and foster development of change in triage and management of these patients.

CHAPTER 3

LITERATURE REVIEW

Sickle cell disease (SCD) is a complex, genetic (autosomal recessively inherited), multi-system illness that affects 7% of the global population, including approximately 80,000 African-Americans (Taylor, Stotts, Humphreys, Treadwell, & Miaskowski, 2010). Caused by a genetic mutation resulting in glutamic acid substitution for amino acid in the sixth position of the mature Beta-globin chain, SCD results in polymerization and deoxygenation of hemoglobin. This leads to the deformation and density of red blood cells in patients with SCA (Brown, 2012; Mousa & Qari, 2010), causing chronic manifestations of acute painful crises known as VOC (Brown, 2012). This long-term condition results in frequent visits to the ED, with 90% of patients requiring inpatient admission because of painful episodes of the sickle cell crisis (Brown, 2012). Due to the pathophysiology (vaso-occlusion) of sickle cell anemia (SCA), these patients have increased morbidity and mortality attributed to acute and chronic complications. These include pain crisis, infection, acute chest syndrome, stroke, and multi-organ (brain, heart, lungs, liver, bone, skin, kidneys) hemolysis (Mousa & Qari, 2010).

Patients who suffer from SCA and SCD present frequently to the ED because of VOC, appearing very ill and presenting extreme subjective complaints of pain, often requiring high doses of opioids. ED medical providers are faced with repeat patient encounters, often related to uncontrolled pain. However, it may be difficult for providers to distinguish objectively patients who have SCD with VOC-generated pain from individuals who present with other subjective and undetermined causes of pain or who are drug seeking because of addiction.

Approximately 980,000 individuals are addicted to opiates nationally (CNN Health, 2010). CNN Health (2010) reports that between 2004 and 2009, there had been a 111% surge in ED visits entailing therapeutic misuse of prescription opiate analgesics, with correlated data that validates prescription medication abuse as the most accelerating drug problem in the country. These statistics are a compelling concern for ED physicians and frequently create the potential to discount analgesia requests by patients in the ED.

However, patients who live with SCD must be managed on a long-term basis for acute episodes of pain (Epstein, Yuen, Riggio, Ballas, & Moleski, 2006), as well as be given general health maintenance and follow-up care. Therefore, these patients typically interface with the health system for episodic pain not controlled via oral analgesia, resulting in frequent utilization of the ED for treatment. 90% of all patients who present to the ED in VOC are admitted for inpatient treatment (Epstein et al., 2006).

In addition, re-hospitalization is frequent among patients with SCD with one-in-five patients having greater than three encounters annually (Brousseau, 2010) and one-in-three re-hospitalized within 30 days. This was greater in comparison to other diseases (heart failure, diabetes mellitus, asthma, and pneumonia) frequently seen in the ED (Brousseau, 2010), resulting in increased health expenditures. However, it is very likely that if proper acute care management of SCD patients is instituted with outpatient follow-up visits (Brousseau, 2010), then re-encounters can be decreased.

The Sickle Cell Disease Association of America, Inc. (SCDAA) estimates that in the United States more than 100,000 individuals have the disease. In addition, numerous other organizations also address treatment issues surrounding SCD, including the NAACP, Urban League, National Institutes of Health (NIH), Health Resources and

Services Administration, Centers for Disease Control and Prevention (CDC), United Way, and the Robert Wood Johnson Foundation, by employing efforts at knowledge advancement and treatment (Sickle Cell Disease Association of America, 2012).

President Richard Nixon signed into law the Sickle Cell Anemia Control Act in 1971, which contained provisions to decrease prior neglect of persons with SCD by allotting monies for screening, education, and research towards SCD. Furthermore, President George W. Bush signed the Sickle Cell Treatment Act in 2003, which contains major initiatives to enhance care quality globally for patients suffering from SCD (SCDAA, 2012). As a result, diagnosticians are in primary positions to engage in practice change initiatives and service improvement for SCD patients.

However, improving access to proper treatment requires that clinicians be knowledgeable and receptive to the needs of these patients. Perceptual biases may pervade treatment modalities when these patients seek help during painful crises. Therefore, this project focused on the education of ED providers by allowing them to view SCD patients as individuals in need of help for an incurable disease that health care providers often stigmatize.

Provider attitudes can have a negative impact on the general receptiveness to providing optimal care to SCD patients. A study by Lattimer et al. (2010) found that SCD patients often report problems with receiving treatment, especially pain relief from ED providers. These patients also stated that they are undertreated and accused of behaviors that mimic those of drug-seekers, with clinicians displaying negative and judgmental attitudes towards their pain. Providers (physicians and nurses) often assume that SCD

patients develop addictions to opioids, although current literature supports the claim that there are only rare instances of addiction among these patients (Lattimer et al., 2010).

SCD patients who encounter negative experiences in the health care industry have increased risk for morbidity associated with their disease, resulting from their hesitation to seek care and treatment and from the resulting improper treatment for their disease. For example, Lattimer et al. (2010) measured the hospital encounters of 45 patients via a standard research tool (The Picker Patient Experience Questionnaire, PPE-15) in a cohort study. Results indicated that 86% of these patients were not involved in their care decisions, and 64% received unclear information, including vague answers to treatment questions (Lattimer et al., 2010). Likewise, in a cross-sectional study of 95 patients by Haywood et al. (2010), adult SCD patients made continual subjective reports of negative experiences when seeking care in health facilities. Clinicians discounted their reported pain as drug-seeking behavior, leading to a mutual distrust between providers and these patients. Poor or biased modes of provider communication were associated with negative patient experiences and lower levels of trust toward providers when seeking treatment for SCD/VOC in the health setting.

Despite provider attitude biases towards SCD patients, global initiatives for improving quality of care for these patients may be possible. Knowledge and awareness are fundamental components of interventions that will improve care and treatment for these patients. Once this gap has been bridged, providers and healthcare organizations (hospital EDs, urgent care centers, etc.) may be more apt to institute a tool that supports treatment for SCD patients.

A qualitative study by Tanabe et al. (2010) identified an adult treatment tool (Emergency Department Sickle Cell Assessment of Needs and Strengths or ED-SCANS) as effective in assisting ED providers to treat patients who have SCD/VOC. This study assessed variations in clinician perceptions of potential drug-seeking behavior among patients both in and out of the ED setting, compared to those diagnosed with SCD. Participants came from seven different states, including Kansas, Tennessee, and Louisiana, which are neighboring states to Arkansas. A major finding was the rate of frustration among ED clinicians over numerous ED visits, hospitalizations, and difficulties maintaining adequate follow-up (outpatient care) and analgesic administration for these patients.

Pham (2008) found that EDs are the main portals of entry into the health care system despite their reputation for misdiagnosis, negligence, and medical errors. Specifically, in 2003 there were more than 1 million ED visits by patients in the United States (a frequency of two visits per five people). This setting (providing access to care 24 hr daily, 7 days per week) often provides care for persons with minimal or no insurance, including some patients with SCD who lack optimal outpatient management. To optimize care, SCD patients must feel that providers are receptive to their physiological and emotional needs, which will permit a prompt initiation of care measures (triage, assessment, analgesia, hydration, and discharge planning). Ratanawongsa et al. (2009) conducted a landmark cohort study that measured the reliability and validity of an assessment scale that focused on provider attitudes towards patients with SCD in VOC. This scale (Positive Provider Attitudes toward Sickle Cell, or PASS, Appendix A), consisting of 10 items, was given to providers within 72 hr of

patient treatment. The developers of the PASS questionnaire measured validity and reliability of the questionnaire using bivariate correlations ($p < 0.001$) with the Medical Condition Regard Scale (Haywood et al., 2010a).

Furthermore, a study by Haywood et al. (2010b) used a video intervention method to determine whether provider ($N = 276$) attitudes towards SCD patients would be affected. Providers completed the PASS questionnaire before and after watching a video in which actual patients discussed their negative ED encounters. These encounters included biased actions by providers in the ED setting that occurred amidst the tormenting pain caused by VOC. There was a significant difference between pre- and post-video attitudes towards SCD in a total of three out of four outcome measurement items, including a profound difference noted in the reduction of negative provider attitudes towards these patients after viewing the video.

In addition, Odesina (2010) identified pain crises as the main reason that most patients who suffer from SCD seek treatment in the ED. Her findings validated the assumption that stigmatization among providers' leads to deficiencies in prescribed analgesia for these patients. Odesina (2009) identified the etiology of chronic pain among SCD patients as follows: organ damage, iron toxicity, neurological damage, and kidney and liver impairment. These recurrent pain episodes cause deficits in SCD patients' quality of life (QL). She stated the following:

The combination of constant unpredictable pain, inadequate pain management by clinicians, and emotional distress is a cycle of despair, which can lead to anxiety

and depression coupled with the sense of losing control; clinicians must recognize that improving health outcomes will play a significant role in improving health related QL (p.8).

Lastly, the Arkansas Legislative Task Force on Sickle Cell Disease (ALTFSCD) Report to the Arkansas General Assembly (August, 2010) stated the following:

- SCD affects more than 1,000 Arkansans;
- poor channels of access for SCD patients increase patient entry into the hospital setting, especially the ED;
- great portions of SCD patients are unemployed or work jobs at minimum wage pay;
- many Arkansas hospitals are left with unreimbursed charges because of frequent and repeat ED visits and hospitalizations;
- there are numerous advantages to the state, the patient, the hospital, and the community to having improved health outcomes for SCD patients (Johnson et al., 2010).

To help alleviate the challenges cited, the ALTFSCD outlined eight key recommendations, which included the development of a Comprehensive Sickle Cell Program using large centers and peripheral sites in the state of Arkansas. A key component of this initiative includes the targeting of physicians as a means to educate and generate change in prior and current practice methodologies in order to institute change in future practice for patients with SCD.

The ALTFSCD also states the following:

- many physicians may not actually know the proper treatment for patients with SCD due to its low prevalence;
- pain management is most challenging to physicians because patients require large doses of opioid analgesia. The recommended protocol is to deliver a bolus (large dose) of medication to get ahead of the pain curve;
- providers often misinterpret continued requests for pain medication as drug-seeking behavior; hence physicians develop perceived biases towards these patients, thereby demonstrating resistance to prescribing appropriate doses of medication;
- patients often feel disrespected by their physicians, developing distrust for the health care system in general;
- the care of sickle cell patients is fragmented for adult patients because there is no comprehensive adult “medical home” for ongoing treatment and management of SCD;
- medical providers demonstrate a reluctance to provide local acute care to these adult patients.

With treatment improvements, morbidity and mortality in the SCD population would decrease while also resulting in increased cost savings for the health care industry in Arkansas (Brousseau, 2010). This QI initiative incorporated nursing science and evidence-based measures to improve provider perceptions and analgesic practices, thereby enacting change within BHMC-LR. Organizational change must be grounded on the premise of theory and science to catalyze optimal success of QI initiatives.

CHAPTER 4

METHODOLOGY

Design, Setting, Sample

This was a pre-experimental one group pre-test/post-test quality improvement project to evaluate the effectiveness of implementation of an evidence-based analgesic algorithm coupled with an intervention on practice change behavior towards patients with SCD. The intervention was delivered in a private conference room at BHMC-LR ED. The ED supervisor and medical director scheduled the intervention times and days. The video was shown on a laptop computer, using an attached speaker for sound clarity. The analgesic algorithm and the pre-and-post PASS questionnaires were provided in paper format to all participants.

The participants consisted of ED nurses and physicians employed by (or of medical staff designation within) BHMC-LR ED for at least 12 months. Exclusion criteria included employment for fewer than 12 months. There were no racial, ethnic, or gender exclusions made among the participants. There were no special accommodations (related to speech, visual, hearing, or physical limitations) required or requested.

Procedure

After receiving approval and proposal acceptance from the University of Nevada Las Vegas (UNLV) Doctor of Nursing Practice project committee, the BHMC-LR Corporate Compliance department (with submission of a project approval letter), and the UNLV Institutional Review Board (IRB), this QI project proceeded.. The DNP student met with the BHMC-LR ED supervisor and medical director to ascertain that all aspects of the intervention were reviewed in detail and acceptable to all members of the

interdisciplinary team. The ED supervisor scheduled the intervention during participants' regular work schedule over two weeks in December 2012. Participation in the research component was voluntary (although the ED supervisor arranged scheduling for all providers for the intervention).

Intervention

This intervention involved the completion of a pretest questionnaire (for those who consented to participate in the research portion), viewing an 8-minute video (depicting actual patients with SCD and a hematologist describing the impact of SCD and the obstacles encountered when looking for medical treatment during pain crises), and presentation of an evidence based analgesic algorithm. The student provided the participants with the following: purpose for participation (via verbal briefing format), instructions for participation in the intervention, and privacy and confidentiality information.

Each participant received a pen and a folder that contained the following:

- UNLV IRB project approval letter
- BHMC-LR Corporate Compliance project approval letter
- informed consent forms
- unique identifier form (to match pre- and post- questionnaires)
- procedure instructions
- color coded questionnaires (yellow=pre, blue=post), and
- color copies of the ED-SCANS Decision 2 Analgesic Algorithm.

After each participant completed the informed consent and unique identifiers, they completed the pre-questionnaire, watched the 8-minute video, and then completed

the post-questionnaire. After that, the student reviewed the ED-SCANS Decision 2 Analgesic algorithm and discussed it with each participant.

Variables

The dependent variables in this study were provider perceptions using a qualitative Likert scale (pre- and post-intervention) and provider practices of analgesia prescribing (pre and post intervention) using data obtained from the PCQI report. The independent variables were watching the 8-minute video and presentation of the analgesic algorithm (ED-SCANS Decision 2).

Data Collection

Participants completed a questionnaire (PASS) that collected provider perceptual responses regarding prior interactions with SCD patients, beliefs/opinions about SCD patients' pain and potential for manipulation of providers, and overall perceptions towards SCD patients in general. There were no monetary incentives offered for participation.

The 10 item PASS questionnaire was developed by Ratanawongsa et al. (2009). It includes the following items.

Questions 1-3 with Likert scale responses of 1 (much less than average) to 5 (much more than average):

1. How much do you like this patient (liking means warmth/enthusiasm for seeing)?
2. How much empathy do you have for this patient?
3. How much respect do you have for this patient?

Questions 4-6 with Likert scale responses of 1 (strongly agree) to 5 (strongly disagree):

4. This patient was frustrating to take care of;
5. This patient is one of those people who makes me feel glad I went into medicine;
and
6. This patient is the kind of person I could see myself being friends with.

Questions 7-10 with Likert scale responses of 1 (not at all likely) to 5 (extremely likely):

7. In your opinion, how likely is this patient to over-report (exaggerate) discomfort?
8. In your opinion, how likely is this patient to fail to comply with medical advice?
9. In your opinion, how likely is this patient to abuse drugs, including alcohol? In your opinion, how likely is this patient to abuse drugs, including alcohol?
10. In your opinion, how likely is this patient to try to manipulate you or other physicians?

The ED-SCANS Decision 2 Analgesic Algorithm provides dosage recommendations (per weight in kilograms) using either intravenous or subcutaneous routes of administration for morphine or hydromorphone in treating SC crisis pain in the ED. The student gave participants an overview of the algorithm and provided an opportunity to discuss their thoughts on the intervention and algorithm.

Data Analysis

The participants' responses and data obtained from the PCQI report were entered into SPSS Version 19. All user-defined missing values were indicated as missing. Statistics for each test were based on all cases with valid data for each variable per test. Paired *t*-tests were used for data analysis of pre- and post-test PASS scores, and an independent samples *t*-test was used for pre-and post-intervention PCQI pain scores.

The International Classification of Disease (ICD) DRG was used to identify SCD patient encounters from the PCQI report. A data abstraction tool was used to collect the data from the PCQI report (25 SCD patient encounters) obtained for the period of 30 days prior to and 30 days after the intervention. Data were entered into SPSS per subject using the following variables: triage level of pain (LOP); LOP 1 hour post analgesia administration; and discharge (from ED) LOP. All user defined missing values were treated as missing in the data analysis.

The pre- and post-intervention provider response scores were calculated as follows: the range of scores for the pre and post PASS questionnaires was 1-10 (with 10 being the higher and most positive attitude). The individual pre- scores (for each questionnaire) were matched with the post- scores using the unique identifiers. A total score was calculated for each questionnaire; individual questions were not analyzed, in accordance with the tool's recommended use.

CHAPTER 5

RESULTS

PASS questionnaire

Fifty participants completed the pre- and post-questionnaire (Table 1). Using a paired samples *t*-test, there was a significant difference at the $p < .001$ level between the scores.

Table 1

PASS Questionnaire Results

	<i>M</i>	<i>N</i>	<i>SD</i>	<i>SEM</i>
Pre-Intervention	22.20	50	7.809	1.104
Post-Intervention	42.96*	50	5.047	.714

*Significant difference ($p < .001$)

PCQI

There were some missing data points. In the pre-intervention time period, four patients had no triage level of pain (LOP) documented. Eight of the patients had no 1 hr LOP reassessment after receiving analgesia. Seven of the patients had no discharge LOP documented. In the post-intervention period, four of the patients had no triage LOP documented. Five patients had no 1 hr LOP documented after anesthesia, and six patients had no discharge LOP documented.

Using independent samples *t*-tests, there was no significant difference in Triage LOP between the pre- and post-intervention samples, indicating the patients' pain levels were approximately the same upon admission. However, there was a significant

difference ($p < .002$) between Discharge LOP, with the LOP approximately 3 points lower post-intervention (Table 1).

Table 2

PCQI Results

Pain Measurement					
Time	Pre or Post Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SEM</i>
Triage LOP	Pre Intervention	21	7.14	3.425	.747
	Post Intervention	21	8.43	2.357	.514
LOP 1 Hour Post Analgesia	Pre Intervention	17	7.00	1.732	.420
	Post Intervention	20	6.10	3.007	.672
Discharge LOP*	Pre Intervention	18	6.67	2.828	.667
	Post Intervention	19	3.74	2.535	.582

* Significant difference $p < .002$

Resources and Costs

This project was implemented at no cost to BHMC-LR. The project did not require any staff overtime or scheduling changes. The student provided all materials (paper, pens, folders, timer, and laptop) for implementation of the project.

Project Timeline

The student completed the project proposal defense on July 12, 2012. The initial proposal defense was on April 26, 2012 but a committee change necessitated a repeat proposal defense. Permission to proceed with the project was given by BHMC-LR on August 17, 2012. The student requested a “Letter of Authorization to Conduct Research” (LACR) from BHMC-LR on August 30, 2012. BHMC-LR did not provide the LACR, a mandatory requirement by the UNLV IRB, for several months due to bureaucratic requirements. This delayed the project. On November 12, 2012, BHMC-LR submitted LACR to the UNLV Office of Research Integrity, which approved the protocol on November 17, 2012.

The student then began to discuss (with BHMC-LR ED nursing supervisor) dates for project implementation. There was a delay in scheduling due to the hospital’s undergoing a transition to electronic medical records September 2012 through December 2012. As a result, the student was not permitted to begin project implementation until December 2012. Correspondence with the ED Nursing Director, the ED Medical Director, the ED Nursing Supervisor, and the student determined a beginning implementation date of December 13, 2012. The PCQI report was reviewed with the ED supervisor for the 30 days prior to the project intervention. The project was completed on December 27, 2012. The student and the ED supervisor reviewed the PCQI report one month after the project was completed, which included all SCD patient encounters during the 30 days following the intervention. Data analysis was completed January 2013. A summary of the findings and further recommendations based upon the findings of the study were made to BHMC-LR stakeholders and the interdisciplinary committee

February 2013. The final presentation of the DNP Doctoral Project defense was completed on March 13, 2013. See Appendix E for detailed project timeline.

Ethical Consideration and Human Subjects Protection

The student completed the required CITI course prior to implementation of this study and maintained compliance with all required ethical principles, protecting the safety, welfare, and rights of all subjects and participants involved in conducting this study. Approval was received from the UNLV IRB and BHMC-LR Corporate Compliance department prior to project implementation. Written consent (containing research purpose, duration, number of subjects, procedures, exclusions, risks, benefits, alternatives, new information, confidentiality, and costs, the right to withdraw or refuse, and contact information) was obtained from all participants. See Appendix F

This project did not require a patient privacy disclosure or direct patient participation because the PCQI report contained only aggregate data. To maintain privacy and confidentiality, participants were not required to disclose any personal identifying information and a unique identifier system was used to compare pre and post questionnaire results of each participant. Data obtained were used to determine the effectiveness of the video intervention and the evidence-based analgesic algorithm.

CHAPTER 6

EVALUATION

This QI project demonstrated positive outcomes from the applied intervention. The findings of this QI study indicated statistically significant support of the following outcomes including the following:

- BHMC-LR ED physicians and nurses demonstrated improved perceptions towards SCD patients after completing the video intervention; and
- BHMC-LR ED physicians and nursing clinicians' post-video practice behavior demonstrated improvement in providing appropriate SCD treatment to patients as evidence by a significant improvement in discharge level of pain.

There were some unanticipated findings upon completion of the intervention, which indicate the need for additional practice change behavior among the nursing clinicians at BHMC-LR ED. Pain assessment (at triage, one hour after analgesia, and upon discharge) is imperative for SCD patients. Upon review of the PCQI report (pre-and-post intervention) it was determined that the nurses were not completing appropriate assessment of patients LOP at triage, one hour after analgesia, or at discharge. Care could improve if appropriate nursing assessment of pain is completed as required by The Joint Commission. In order for providers to institute permanent change in analgesia prescribing, they must have concise documentation of patients subjective LOP.

Limitations

This QI study had several limitations. The intervention was brief and one time only. There was no chart review to assess whether prescribing practices had improved or

whether the changes were sustained over time. The findings did indicate a decrease in negative provider perceptions towards SCD patients, but there was no repeat testing later to determine whether or not their perceptions remained improved.

Strengths

This QI project demonstrated that it is possible to change providers' negative attitudes towards patients with SCD and to improve their pain management. The intervention was of low cost; allowing other organizations to replicate this practice improvement initiative with little disruption to ED provider schedules.

Recommendations

Recommendations to BHMC-LR ED include the following, based upon the completion of this QI study:

- quarterly clinical staff educational sessions regarding the importance of documenting LOP on all patients upon triage, one hour after analgesic administration, and upon discharge;
- subjective and objective pain assessment on all patients upon entrance into the ED, one hour after administration of analgesia, and upon discharge;
- ED Supervisor to perform monthly PCQI assessment of analgesic practices among SCD patients who are treated in the ED;
- monthly clinician (physicians and nurses) meetings to discuss PCQI data and intervention strategies for improvement in the delivery of health services to SCD patients;
- administration monitoring of frequency (increases and decreases) among SCD patients following this QI project;

- ED Supervisor to attend quarterly meetings held by the Arkansas Minority Health Commission to increase educational awareness about the needs of this patient population and works currently underway for this population in Arkansas;
- community alliance between BHMC-LR and the University of Arkansas for Medical Sciences upcoming Adult Sickle Cell Day Clinic (ASCDC); allowing for SCD to receive discharge instructions that include follow-up with community providers and the ASCDC;
- ED Supervisor to perform quarterly educational opportunities for clinical staff specific to SCD assessment, treatment, and follow-up; and
- ED Medical Director to consider adaptation of an analgesic support algorithm in the ED.

CHAPTER 7

FISCAL IMPLICATIONS FOR CHANGE

The outcome of this project may result in decreased ED visits, revisits, and hospitalizations at BHMC-LR. The result is likely to be cost containment by reduction of SCD patient visits and repeat hospitalizations in the ED.

CHAPTER 8

SUSTAINING AND MAINTAINING THE CHANGE

Upon completion of this project (intervention, data collection, and data analysis), the student met with the BHMC-LR interdisciplinary team reviewing the results and recommendations for practice using the third stage of Lewin's Change Management Model. The student reviewed the pre-intervention and post intervention PCQI data in detail with the team, as well as the results of the pre- and post-intervention provider responses, based on the video and analgesic algorithm intervention. The ED-SCANS analgesic algorithm was reviewed with the team and suggested for adoption into practice in the ED. The benefits of decreased SCD admissions, decreased SCD ED visits, and increased cost savings for BHMC-LR were all received favorably by the team.

CHAPTER 9

QUALITY IMPROVEMENT AND DOCTORAL ADVANCED NURSING PRACTICE

This QI project is representative of the standards set forth by the 2006 American Association of Colleges of Nursing (AACN) Essentials for Doctoral Advanced Nursing Practice. The following description provides support for this project:

- Essential I: Outlines that Doctor of Nursing Practice (DNP) graduates possess a wide array of knowledge from the sciences and have the ability to translate that knowledge quickly and effectively to benefit patient in the demands of practice environments;
- Essential II: States that DNP graduates should be prepared with sophisticated expertise in assessing organization, identifying systems' issues, and facilitating organization-wide changes in practice delivery. In addition, Advanced Nursing Practice requires political skills, systems thinking, and the business and financial acumen needed for the analysis of practice quality and costs;
- Essential III: States that the scholar applies knowledge to solve a problem via the scholarship of application (referred to as the scholarship of practice in nursing).

This application involves the translation of research in to practice and the dissemination and integration of new knowledge, which are key activities of DNP graduates. The scholarship of application expands the realm of knowledge beyond mere discovery and directs it toward humane ends. Nursing practice epitomizes the scholarship of application through its position where the sciences, human caring, and human needs meet and new understanding emerge;

- The goal of Evidence-Based practice as per the student's anticipated role as a DNP is that of promoting effective nursing interventions, efficient care, and improved outcomes for patients and to provide the best available evidence for clinical, administrative, and educational decision making. DNP graduates have a significant role in advancing the production of nursing knowledge. It is essential to link the synergy for knowledge with the practice and dissemination of knowledge and theoretical thinking. This QI project is a clear demonstration of the integration of the essentials set forth by the AACN and the student's ability to represent these channels of doctoral advanced nursing practice.

CHAPTER 10

IMPLICATIONS FOR PRACTICE AND CONCLUSION

SCD is an incurable chronic disease, and the delivery of health services to SCD patients must integrate measures for the bridging of current gaps in legislation and clinical treatment. QI initiatives must be predicated on evidence-based measures by which care for these patients can be optimized. It is essential that providers have a formidable knowledge base regarding the treatment of SCD and VOC, including the imperative nature of prompt recognition and treatment in the ED setting.

According to Smith, Oyeku, Homer, and Zuckerman (2006), there is a nationwide focus on QI for the delivery of medical care. However, there has been minimal actual progression in the channels of care for SCD or in the development of new models (including refinement of older models of care) of QI for SCD, which continue to impede the delivery of health services for SCD treatment. DNP clinicians have the knowledge and clinical expertise to develop interventions for QI among SCD patients, including reformation of current models of care delivery. DNPs are essential agents of dissemination for improved methods of access, improved cost-efficacy, reduction of provider frustration via the promotion of community resources for outpatient management of SCD, and in improving outcomes in treatment for patients who suffer from SCD.

Conclusion

This project improved outcomes for SCD patients and will likely reduce ED and hospital readmission rates at BHMC-LR. The administrators, ED Medical Director, ED Nursing Director, and ED Nursing Supervisor are considering the adoption of a decision

support tool (i.e., ED-SCANS) to help support future decision-making and treatment of SCD patients in the ED.

The Doctor of Nursing Practice (DNP) team leader mobilized BHMC-LR stakeholders to unite in achieving the common goal of improving outcomes, increasing containment, and improving life quality and health outcomes for SCD patients at BHMC-LR. Levasseur (2001) found that if a crisis motivates a change, and if this change is motivated by a need to improve a given system's productivity, then actual change is possible. Using this model demonstrated improvement in the perceptions and attitudes of BHMC-LR ED providers and provoked measures for sustaining this level of treatment at this ED. By problem identification, solution development, change implementation, and the re-establishment of balance in practice behavior (Buonocore, 2004), BHMC-LR demonstrated an evidence-based change in practice behaviors, optimizing and enhancing treatment for SCD patients in the ED.

APPENDIX A: PASS QUESTIONNAIRE

Positive Provider Attitudes toward Sickle Cell Patients Scale (PASS) Score

Source: Ratanawongsa N, Haywood C, Bediako SM, Lattimer L, Lanzkron S, Hill PM, Neil R. Powe NR, Beach MC. "Health care provider attitudes towards patients with acute vaso-occlusive crisis due to sickle cell disease: development of a scale." *Patient Education and Counseling* 2009. 76(2):272-8.

Not every patient is regarded the same. Compared to the average patient.....	Much less than average	Less than average	Average	More than average	Much more than average
1. How much do you like this patient? (<i>Liking means warmth/enthusiasm for seeing</i>)	1	2	3	4	5
2. How much empathy do you have for this patient?	1	2	3	4	5
3. How much respect do you have for this patient?	1	2	3	4	5
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
4. This patient was frustrating to take care of.	1	2	3	4	5
5. This patient is one of those people who make me feel glad I went into medicine.	1	2	3	4	5
6. This patient is the kind of person I could see myself being friends with.	1	2	3	4	5
In your opinion, how likely is this patient to.....	Not at all likely	A little likely	Somewhat likely	Very likely	Extremely likely
7. ...over-report (exaggerate) discomfort?	1	2	3	4	5
8. ...fail to comply with medical advice?	1	2	3	4	5
9. ...abuse drugs, including alcohol?	1	2	3	4	5
10..... try to manipulate you or other physicians?	1	2	3	4	5

Additional item (not part of PASS score):

Compared to other patients with pain crises, how severe do you think the pain was in this patient?	Severe pain	Moderate pain	Mild pain	Minimal pain	No pain
	1	2	3	4	5

- Total possible score: 10 – 50 (higher scores indicate more positive attitudes)
- Items 5-10 are reverse-scored.
- Cronbach’s alpha in study = 0.913
- Item sources:
 - Newly-created items: questions 3, 5, and 7
 - Question 1: Hall JA, Horgan TG, Stein TS, Roter DL. Liking in the physician--patient relationship. *Patient Educ Couns* 2002; 48(1):69-77.
 - Question 3: Beach MC, Roter DL, Cooper LA. Are physicians’ attitudes of respect accurately perceived by patients and associated with more positive communication behaviors? *Patient Educ Couns* 2006; 51: 347-54.
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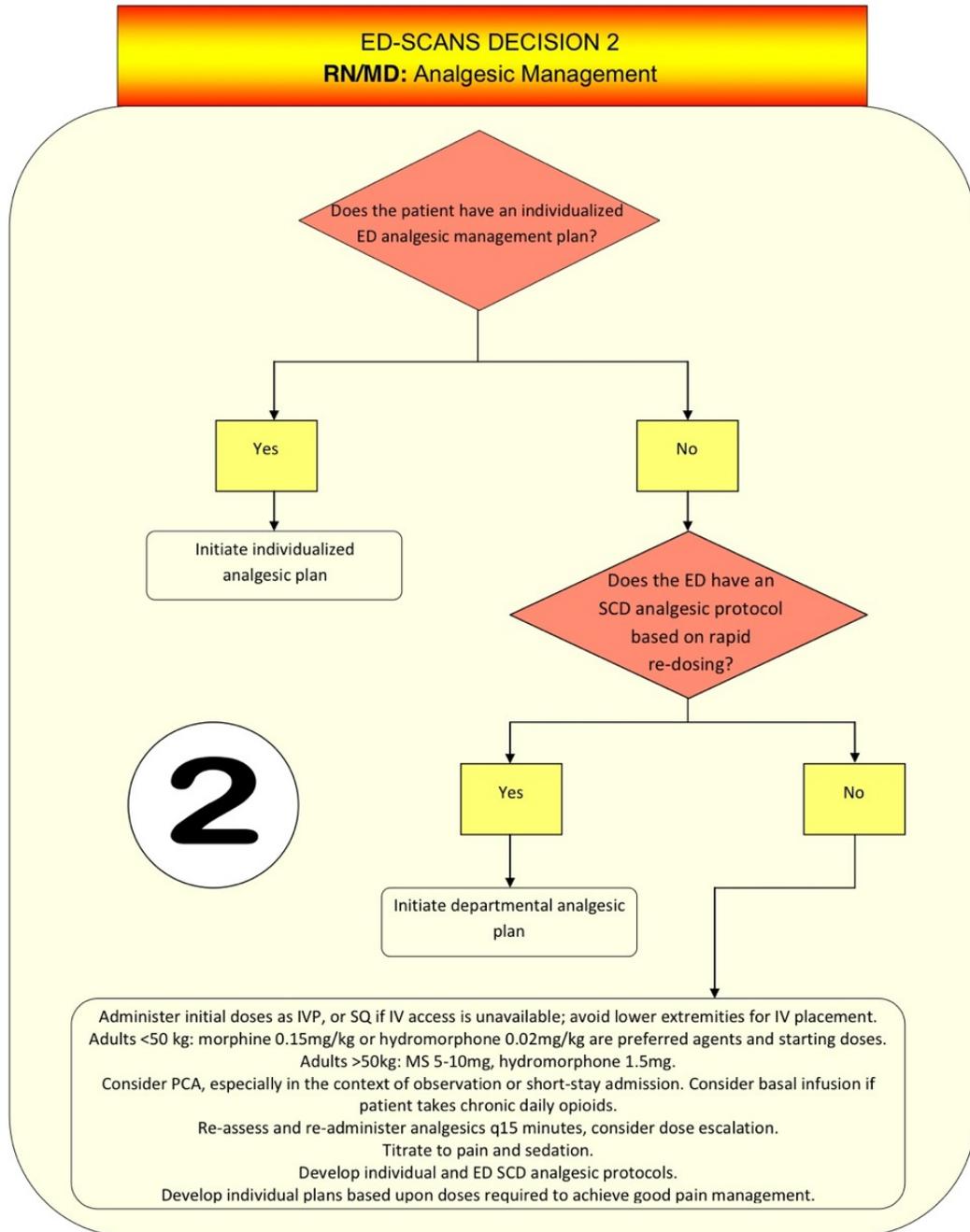
APPENDIX B: CRISIS VIDEO LINK

“CRISIS: Experiences of People with Sickle Cell Disease Seeking Healthcare for Pain”

Copy the following hyperlink into an Internet browser:

<http://www.sicklecellrespect.org>

APPENDIX C: ED-SCANS DECISION 2 ALGORITHM



APPENDIX D: DETAILED PROJECT TIMELINE

Project Task	Dates
• Initial Project Proposal Defense to Project Committee	April 26, 2012
• Project Committee Member Change Completed	May 7, 2012
• Completion of Recommended Changes to Project Proposal	June 26, 2012
• Proposal turned in to Project Chair	June 29, 2012
• Proposal Defense to Project Committee	July 12, 2012
• Authorization to Proceed with Project Received from BHMC-LR Corporate Compliance Department	August 17, 2012
• Initial Letter of Authorization to Conduct Research received from BHMC-LR	August 27, 2012
• Meeting held between Project Chair, BHMC-LR QI Director, and student	November 12, 2012
• Revised and completed Letter of Authorization to Conduct Research received from BHMC-LR Corporate Compliance Department	November 12, 2012
• UNLV IRB protocol approval received/Expedited Review	November 17, 2012
• Student and BHMC-LR ED Supervisor planning for project implementation dates	November 18, 2012
• Project implementation began at BHMC-LR ED	December 13, 2012
• Review of PCQI Report (30 days prior to period before intervention)	
• Conclusion of project implementation at BHMC-LR ED	December 27, 2012
• Review of PCQI Report (30 day time period following intervention)	January 23, 2013
• Data Analysis with Project Chair	January/February 2013
• Summary and presentation of findings to BHMC-LR stakeholders	February 2013
• Completion of Writing of Final Project	February 2013
• Final Project Oral Defense	March 13, 2013

APPENDIX E: UNLV APPROVED INFORMED CONSENT



INFORMED CONSENT

Department of Nursing

TITLE OF STUDY:

Sickle Cell Disease: A Quality Improvement Initiative for Emergency Department Providers

INVESTIGATOR(S): Nancy Menzel, PhD, RN; Pretrescia Walker, MNSc. APN, ACNP

For questions or concerns about the study, you may contact Pretrescia Walker at (501)-766-3648 or Nancy Menzel at (702) 895-5970.

For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted, contact **the UNLV Office of Research Integrity – Human Subjects at 702-895-2794, toll free at 877-895-2794 or via email at IRB@unlv.edu.**

Purpose of the Study

You are invited to participate in a research study. The purpose of this study is to improve current analgesic practices for Sickle Cell Disease patients at Baptist Health Medical Center-Little Rock, Arkansas.

Participants

You are being asked to participate in the study because you fit this criteria: You are either a nurse or physician, employed (for greater than 12 months) by or with staff designation at Baptist Health Medical Center-Little Rock, Arkansas.

Procedures

If you volunteer to participate in this study, you will be asked to do the following: You will be asked to complete the pre-training questionnaire “Positive Provider Attitudes Towards Sickle Cell Patients Scale” (PASS), then watch the 7-minute video “Crisis: Experienced of People With Sickle Cell Disease Seeking Healthcare for Pain,” then complete the post-training PASS questionnaire, then attend a 10-minute presentation on an analgesic support algorithm entitled Emergency Department Sickle Cell Assessment of Needs and Strengths (ED-SCANS).

Benefits of Participation

You may benefit from participating in this study by having an increased awareness of the analgesic needs of patients who present to the Emergency Department for treatment.

Risks of Participation

There are risks involved in all research studies. This study may include only minimal risks. You may become uncomfortable when watching the video or in answering some of the questions on the questionnaire.

Cost /Compensation

There are no financial costs to you to participate in this study. The study will take 30 minutes of your time during your scheduled shift. There will be no compensation for your time.

Confidentiality

All information gathered in this study will be kept as confidential as possible. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time, the information gathered will be shredded.

Voluntary Participation

Your participation in this study is voluntary. You may refuse to participate in this study or in any part of this study. You may withdraw at any time without prejudice to your relations with UNLV or Baptist Health Medical Center. You are encouraged to ask questions about this study at the beginning or any time during the research study.

Participant Consent:

I have read the above information and agree to participate in this study. I have been able to ask questions about the research study. I am at least 18 years of age. A copy of this form has been given to me.

Signature of Participant

Date

Participant Name (Please Print)

APPENDIX F: UNLV IRB PROTOCOL APPROVAL EXPEDITED REVIEW



**Biomedical IRB – Expedited Review
Approval Notice**

NOTICE TO ALL RESEARCHERS:

Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.

DATE: November 14, 2012
TO: **Dr. Nancy Menzel**, Nursing
FROM: Office of Research Integrity - Human Subjects
RE: Notification of IRB Action
Protocol Title: **Sickle Cell Disease: A Quality Improvement Initiative for Emergency
Department Providers**
Protocol #: 1209-4242
Expiration Date: November 13, 2013

This memorandum is notification that the project referenced above has been reviewed and approved by the UNLV Biomedical Institutional Review Board (IRB) as indicated in Federal regulatory statutes 45 CFR 46 and UNLV Human Research Policies and Procedures.

The protocol is approved for a period of one year and expires November 13, 2013. If the above-referenced project has not been completed by this date you must request renewal by submitting a Continuing Review Request form 30 days before the expiration date.

PLEASE NOTE:

Upon approval, the research team is responsible for conducting the research as stated in the protocol most recently reviewed and approved by the IRB, which shall include using the most recently submitted Informed Consent/Assent forms and recruitment materials. The official versions of these forms are indicated by footer which contains approval and expiration dates. Should there be *any* change to the protocol, it will be necessary to submit a **Modification Form** through ORI - Human Subjects. No changes may be made to the existing protocol until modifications have been approved by the IRB. Modified versions of protocol materials must be used upon review and approval. Unanticipated problems, deviations to protocols, and adverse events must be reported to the ORI – HS within 10 days of occurrence.

If you have questions or require any assistance, please contact the Office of Research Integrity - Human Subjects at IRB@unlv.edu or call 895-2794.

Office of Research Integrity - Human Subjects 4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047
(702) 895-2794 • FAX: (702) 895-0805

APPENDIX G: BHMC-LR LETTER OF AUTHORIZATION



9601 Interstate 630, Exit 7
Little Rock, AR 72205-7299
501.202.2000

Office of Research Integrity – Human Subjects
University of Nevada Las Vegas
4505 Maryland Parkway Box 451047
Las Vegas, NV 89154-1047

Subject: Letter of Authorization to Conduct Research at Baptist Health Medical Center-Little Rock.

Dear Office of Research Integrity – Human Subjects:

This letter will serve as authorization for the University of Nevada, Las Vegas (“UNLV”) researcher, Pretrescia Walker MNSc APN, ACNP titled “Sickle Cell Disease—A Quality Improvement Initiative for Emergency Department Providers at Baptist Health Medical Center-Little Rock, located in Arkansas has been approved by the Medical, Nursing, Quality, and Corporate Compliance representatives.

Baptist Health Medical Center-Little Rock acknowledges that it has reviewed the protocol presented by the researcher, as well as the associated risks (minimal to low) to the Baptist Health Medical Center-Little Rock. Baptist Health Medical Center-Little Rock accepts the protocol and the associated risks (minimal to low) to Baptist Health Medical Center-Little Rock, and authorizes the research project to proceed. The research project may be implemented at Baptist Health Medical Center-Little Rock Emergency Dept. upon approval from the UNLV Institutional Review Board.

If we have any concerns or require additional information, we will contact the researcher and/or the UNLV Office of Research Integrity – Human Subjects.

Sincerely,



Greg Crain, Vice President-Administrator
Baptist Health Medical Center-Little Rock
9601 Interstate 630, Exit 7
Little Rock, AR

11/12/12
Date

Greg Crain, Vice President-Administrator
Printed Name and Title of Authorized Signatory



APPENDIX H: DATA ABSTRACTION TOOL

Subject #	Triage LOP Score (1-10)	1 Hour After Analgesia LOP Score (1-10)	Discharge LOP Score (1-10)
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
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CURRICULUM VITAE

Pretrescia Marie Walker
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PROFESSIONAL OBJECTIVE

To maintain full-time employment with an Acute Care Facility as an Acute Care Nurse Practitioner or in a university or academic institution as a College of Nursing faculty member.

EDUCATION

- *University of Nevada Las Vegas-Doctor of Nursing Practice Program
- *Board Certified Acute Care Nurse Practitioner
- *Licensed Advanced Practice Registered Nurse
- *University of Arkansas for Medical Sciences- MNSc
- *University of Central Arkansas (UCA) - BSN
- *Critical Care Certification
- *Advanced Cardiac Life Support Certification

HEALTH CARE EXPERIENCE

2009-present	Administrator/Clinical Leader/Educator for Walker Internal Medicine Clinic, P.A. in Little Rock, Arkansas
2009-2011	Team Leader /Rapid Response Team Member for The Rapid Response Team at The Department of Veterans Affairs Medical Center in Little Rock, Arkansas.
2001-2009	Acute Care Nurse Practitioner for Walker Internal Medicine Clinic, P.A. in Little Rock, Arkansas
2004-2005	50% Faculty Appointment with the University of Arkansas for Medical Sciences as a Clinical Instructor
2001-2004	Part-Time Clinical Instructor at the University of Arkansas for Medical Sciences-College of Nursing
1999-2001	Acute Care Nurse Practitioner clinical practicum in Internal Medicine, Cardiology, Pulmonology, and Nephrology
1995-2001	RN II at Baptist Medical Center-Critical Care Department-Telemetry Unit *Skills initiation and documentation R/T Cardiovascular/

Medical-Surgical Nursing:

- Admission profiles-Risk factor Management
- Identification/documentation of patient teaching, learning, and psychosocial needs
- Development of measurable/realistic patient outcomes
- Timely initiation of physician orders
- Clinical organization/crisis management
- Prioritization in delegation to health team members
- Safety in medication administration and related cardiovascular nursing procedures

1998-1999

RN II at Arkansas Heart Hospital

1995-1996

Charge Nurse at Chenal Rehabilitation/Healthcare Center

*Long-term Care/Rehabilitation Nursing

- Restorative Feeding -Reality Orientation
- Ambulation Techniques -Alignment/Positioning
- Bowel/Bladder Training -Care plan Evaluation
- Isolation/Sterile Technique
- Infusaport/PCA/Central Venous therapy

1994-1995

Charge Nurse at Hill Haven Healthcare Center on the skilled care unit

- Supervision of CNA's
- Patient/family education; specifically, the trajectory of acute/chronic illness in R/T the family unit in a long-term care environment
- Consistent collaboration with various physicians throughout the implementation of protocols/standing orders
- Long-term management/administration of intravenous anticoagulant therapy via CVL
- Conducted individual/group in-services on diabetic skin/feet/nail care, updraft administration, enteral feeding techniques, and stress management

1995-2001

Primary RN for an Internal Medicine Physician

*Attending to Acute/Long-term/Rehabilitation patient treatment regimens

**PROFESSIONAL
ACTIVITIES**

2012-2013

Sigma Theta Tau International Honor Society

2012-2013	Golden Key International Honor Society
2012-2013	American Association of Diabetes Educators
2010-2013	American Academy of Nurse Practitioners
2009-2011	American College of Nurse Practitioners
2002-2011	Little Rock Black Nurses Association
2001-2005	Arkansas Medical & Dental Pharmaceutical Association
2000- 2005	Sigma Theta Tau International Nursing Honor Society
1999-2001	Dean's List at UAMS
2000	Certified Sexual Assault Nurse Examiner
2000	Cancer Chemotherapy Certification
1998-2011	Advanced Cardiac Life Support Certification
1993-2000	*Member of Sigma Theta Tau International Nursing Honor Society * Research Colloquium participant *Attended Arkansas State Nurses Convention *Member of Gamma Beta Phi Honor Society *Member of Who's Who Among Students in American Colleges and Universities *AMDPA *Attended Advanced Critical Care Conference *Attended Cardiology/Critical-care Conference in San Diego, CA
1990-1994	Dean's List at University of Central Arkansas
1991	Presidential Scholar

**COMMUNITY
ACTIVITIES**

- *Member of Delta Sigma Theta Sorority, Inc.
- *Volunteer for American Red Cross Association
- *Volunteer for UAMS/VA Universal Wellness Project
- *Member of the Health Ministry at Second Baptist Church, LR, AR

*Volunteer consultant for Little Rock Healthcare and Rehabilitation Center

-Providing in-services for Director of Nursing and entire nursing staff

*Preceptor for ACNP students from UAMS

*Preceptor for BSN students from UCA

*Volunteer for numerous community wellness screenings and health fairs

*Volunteer speaker for numerous church speaking engagements with focus on women's health and wellness

REFERENCES

Available upon request