TTUHSC OP 73.18 Attachment A

Quality Improvement Review Board Application

1. Project leader: (a TTUHSC faculty member with >50% appointment at TTUHSC)

Name	TTUHSC Faculty Advisor
Title	Professor
Department	Nursing
Campus	TTUHSC
Phone number	806-743-0000
E-mail	@ttuhsc.edu

2 Project team: (list all involved with the project)

Name	**Title**	**Department**	**E-mail address**	**Role on the project**
TTUHSC Master's Student	MSN Student	Nursing		Project Manager
	Nurse Practitioner	Nursing		Liaison with administration and physicians
	Chest Pain Program Coordinator	Nursing		Data management
	Director Medical Surgical Services	Nursing		Director Cardiac Unit; administration representative for Chest Pain Committee

3. Project Title:

Increasing the rate of cardiac rehab referrals through a charge nurse liaison

4. Provide a brief (2-4 sentence) summary of your project.

The purpose of this project is to increase the number of inpatient referrals to local cardiac rehabilitation (CR) programs. CR is a secondary prevention comprehensive program promoting lifestyle changes and risk factor education to prevent future complications and promote better outcomes for high-risk patients (Amsterdam & Wenger, 2014). Through this quality improvement project, our team seeks to improve this referral rate through improved patient advocacy, communication, and education on the benefits of CR.

5. State the project goal(s). Include information about who will benefit from the project. Note that QI project goals are intended to bring about immediate improvements in a specific population. For example, "Our goal is to reduce the rate of hospital re-admission for TTUHSC Internal Medicine patients by 35% in 3 months."

Increase the percentage of referrals of eligible cardiac rehab (CR) candidates to phase II CR discharging from The Hospital to 90% (improve by 9.1%) by July 1, 2021.

6. Provide background information and significance of the project. What is the problem that your project addresses?

Nationally, CR utilization is vastly underutilized.

- Despite "widespread acknowledgement of efficacy and repeated calls for action", 80% of eligible patients do not participate in CR with gaps in "adoption, referral and persistence" (Kones et al., 2019)
- Medicare cohort demonstrated only 16.3% of eligible patients participated in CR, while a Veterans' Administration cohort only demonstrated 10.3% of eligible patients participating (Kones et al., 2019)
- Some populations were less likely to receive a referral for CR; non-English speakers, older adults and women were all less likely to be referred for CR and as a result had decreased participation rates (Servey & Stephens, 2016)

At The Hospital,

- Systemwide – 12 acute hospitals – The Hospital falls in bottom quartile
- 166 CR-eligible patients from July 2020 through January 2021
- 30 patients, or 18.1%, were not referred to cardiac rehab and of those
    - 15 eligible patients lacked cardiologist's order
    - 13 eligible patients had failed nursing action om referral order
    - 2 eligible patients had failed documentation on CR education by nursing

Problem

The problem is CR-eligible patients at The Hospital are not consistently made aware of CR programs or their risk-reducing benefits through monitored lifestyle change. Lack of ownership of the CR referral process between physicians and nursing, poor understanding of the benefits of CR and how to provide education to patients, and a lack of coordinated real-time tracking of eligible patients has led to sub- optimal referral of patients to CR.

7. Describe your plan of improvement intervention. What procedures will you follow?

There are two major interventions used in the project simultaneously.

1. Tangible Leadership – 3West charge nurses will act as nurse liaisons, leading the effort daily to identify, procure orders when necessary and approach CR-eligible patients to increase referral rate
2. Standardize the communication tools – patient education handouts will be supplied to simplify the process and assure consistency.
3. Simplify the process – 3West charge nurses, tasked with a specific role, will decrease variability in CR knowledge and materials to create a more standardized and best practices approach to presenting CR education

Procedures of the project

Our goal is to increase the hospital-wide CR referral rate to 90%. To affect this rate, we will initiate a PDSA cycle on 3West testing standardized education presented by a charge nurse liaison. 3West, a medical-surgical cardiac unit, discharges the greatest number of CR-eligible patients in the hospital. 3West also has the greatest of CR fallouts, 10 missed referrals, in the past seven months. If the PDSA cycle demonstrates success on 3West by increasing the hospital-wide CR referral rate to 90%, the intervention will be pursued on other units as well.

- The liaison will meet with each patient with a CR referral order to provide educational handouts supplied by the Million Hearts 2022 campaign and guide them through the enrollment. Ades et al. found the use of a liaison improved the CR referral rate to 59% compared with 32% for standard care (2017).
- Provide information and education to cardiology groups and 3W staff nurses regarding implementation of liaison program.
- Liaisons will use the charge nurse report, each shift to report on liaison activity. Documentation includes, the number of patients: a) eligible for CR, b) educated, c) whose referral is complete, and d) not approached for CR.
- Liaisons will participate in tracking of CR data and eligibility as quality of care indicator as Ades et al. have identified a link between CR referrals as a performance indicator and increased referral rates (2017).

8. What is the relationship between the project team and the project participants (patients/students)? Is the project team in a position to effect change in the setting?

The project team is in a position to effect change in our cardiac setting. The Chest Pain Committee and administrator are charged with monitoring and tracking cardiac rehab referrals. As manager of the cardiac unit, I am well-positioned to implement change on the unit.

9. Where and how will you obtain data? Describe what will be collected and the source of data. Do you routinely access these data (medical records, student scores, etc.) in your normal scope of work?

Data is currently tracked by our Chest Pain Program Coordinator. Metrics will be reviewed monthly to determine if the intervention is increasing our cardiac rehab referral rate. I have routine access to the data.

Measure Type	Project Measures	Data Collected to arrive at the information	Sources of where you will locate the data
Outcome	Percentage of CR Referrals	# of CR referrals and # of all eligible CR candidates hospital-wide	Documentation from EMR obtained by the Chest Pain Coordinator

Process	Percentage of cardiologists ordering CR referrals	# of CR referrals by cardiologists and # of all eligible CR candidates	Documentation from EMR obtained by the Chest Pain Coordinator; I will then manually audit data for missing referral orders
Process	Completion rate of 3W charge nurses serving as liaison to meet with patients	# of CR-eligible patients approached on 3W by charge nurse liaison and # of eligible CR candidates on 3W	I will compile # of CR-eligible patients by charge nurse from charge nurse report and track in Excel; I will obtain total # of eligible CR candidates on 3W from the Chest Pain Coordinator
Balancing	Decreased physician participation on CR education to patients due to increased role of nurse liaison.	# of CR-eligible patients on 3W who respond their cardiologist has not discussed CR and # of all eligible CR candidates on 3W	Charge nurse will compile and include in the revised charge nurse shift report; I will obtain total # of eligible CR candidates on 3W from the Chest Pain Coordinator
Balancing	Charge nurse reports unable to complete other assigned tasks due to addition of CR liaison	# of shifts reported by charge nurses of missed tasks related to CR approach and # of CR-eligible patients approached on 3W by charge nurse liaison	Charge nurse will compile and include in the revised charge nurse shift report; I will obtain total # of eligible CR candidates on 3W from the Chest Pain Coordinator

10. How will you analyze your data? How will you measure if the intervention was successful?

I will utilize a run chart to analyze percent of hospital-wide cardiac rehab referrals over time. The intervention will be successful if the number of hospital-wide cardiac rehab referrals is >= 90%.

11. Describe any ethical considerations (data confidentiality, possible coercion, subject selection, risk/benefit ratio, etc.) and explain what you are doing to address these concerns.

All patient information will remain anonymous; only outcomes of patients approached by charge nurse liaison and total number of CR-eligible patients will be reported. Through the charge nurse liaison approach, patients will not be coerced to participate. All patients identified as eligible for CR on 3West will be approached; there

is no identified risk associated with providing standardized education on the benefits of CR. Benefits of proposed standardized approach include increased knowledge of CR with increased potential for enrollment in CR. Increased enrollment in CR provides individual benefits for cardiac patients with the potential improved quality of life and decreased risk of cardiac-related mortality. Additional benefits include improved community health and reduced re-admissions to The Hospital.

12. Who is providing the necessary funding and resources for this project? If the project is conducted outside of TTUHSC and/or requires information or project participants that are not controlled by TTUHSC, please provide an appropriate letter of support.

This project is budget-neutral. No additional funding is necessary; existing resources and personnel will be utilized. The Chest Pain Committee, the hospital administration, and the hospital supports this project.

13. What are your plans for dissemination of project results?

The dissemination plan will include ongoing reporting of CR referral data.

- Data will be presented monthly at the 3W staff meetings to provide feedback to nurses and charge nurses on success of intervention.
- Data will also be reported at the quarterly cardiology section meeting as a quality-of-care performance indicator and to reinforce the cardiologist-nursing partnership.
- Data will be presented monthly at the Chest Pain Committee to ensure progress toward our Joint Commission Chest Pain Accreditation status and for suggested revisions for adverse findings.

Submit completed application to the TTUHSC Quality Improvement Review Board at QIRB@ttuhsc.edu. Additional pertinent information may be submitted as attachments. Questions may be directed to the Director of Quality Improvement Review at the above email address or by phone at 806-743-4276.

Please sign electronically and attach to an email – OR - print, hand-sign, then scan and send via email.

Project leader Signature:

Date: _____

TTUHSC OP 73.18 Attachment A

Quality Improvement Review Board Application

1. Project leader: (a TTUHSC faculty member with >50% appointment at TTUHSC)

Name	TTUHSC Faculty Advisor
Title	Associate Professor
Department	School of Nursing
Campus	Texas Tech University Health Science Center
Phone number	806.743.0000
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2 Project team: (list all involved with the project)

Name	Title	Department	E-mail address	Role on the project
DNP Student	Lead PI Coordinator	Quality Management		Lead
	Spec. Nursing Informatics	Nursing Informatics		Informatics Project Manager
	Manager of Inpatient Pharmacy	Pharmacy		Pharmacy Project lead
	Sr. Systems Analyst	Information Systems		Lead IT Analyst
	Admin. Dir. Quality Management	Quality Management		Project Oversite
	Dir. Nursing Informatics	Nursing Informatics		Informatics Project Oversite

3. Project Title:

Patients First: Improving Pain Management with an Electronic Pain Assessment Tool

4. Provide a brief (2-4 sentence) summary of your project.

The project will consist of addressing pain assessments before giving pain medications. An electronic pain assessment tool will be implemented in the medication administration screen when scanning a pain medication to help nurses do their pain assessments. This intervention will increase pain assessments compliance in The Hospital.

5. State the project goal(s). Include information about who will benefit from the project. Note that QI project goals are intended to bring about immediate improvements in a specific population. For example, "Our goal is to reduce the rate of hospital re-admission for TTUHSC Internal Medicine patients by 35% in 3 months."

By December 2021, The Hospital nurses on medical-surgical units will achieve >85% compliance with premedication pain assessment documentation following implementing an electronic health record pain assessment tool.

6. Provide background information and significance of the project. What is the problem that your project addresses?

Nurses at The Hospital are not completing their pain assessment and reassessments. The deficiency was found during a triennial survey from The Joint Commission (TJC). The facility nurses are not in compliance and are not following TJC standards based on the
U.S. Centers for Disease Control and Prevention (CDC) for safe practices with opioid prescriptions.

Background

Pain management has become a focal point for The Joint Commission (TJC) surveys to bring awareness to safe pain medication administration (The Joint Commission, 2017). Unfortunately, opioid addiction has become a national epidemic that takes more lives than vehicle accidents (Wilkerson et al., 2016). Currently, TJC's role in addressing the opioid epidemic is to enforce and follow the CDC guidelines and safe practices of opioid prescription (G. H. Jones et al., 2018). However, many organizations fail to adhere to these protocols. Providers and hospitals play a big role in part of the opioid epidemic. Pain assessments are vital in knowing the correct dosage in managing pain for each patient. If this information is not known, it can contribute to inadequate pain management and giving excessive amounts of pain medications to patients (Liljamo & Kinnunen, 2020).

Opioid Epidemic

The purpose of the standards that TJC has implemented is for patient safety. These standards or guidelines come based on the CDC guidelines (2018) for prescribing opioids for chronic pain, referenced in the TJC R3 report issue 15, setting the new standards in 2018 for pain assessment and management standards for acute care and critical access hospitals (The Joint Commission, 2019). Opioid addictions can happen for multiple factors, including opioids for treating pain related to cancer, surgeries, fibromyalgia, and chronic disabilities, overmedicating by physicians, lack of follow-up by patients, and not following prescription instructions (Du Pen et al., 2000; Nahin, 2015).

Pain Assessments and Pain Control

Effectively managing a patient's pain can relieve anxiety, depression, or fear about medication addiction (Allen et al., 2018; Song et al., 2015). Proper pain assessments and education can help improve patient outcomes (Sturesson et al., 2016). An initiative that was done in 1995, the pain was the "fifth vital sign." In a study by Sturesson et al. (2016), using mandatory pain assessment forms built within the electronic health record (EHR), the researchers demonstrated a significant improvement in nursing documentation.

Opioid addiction has multiple layers that one solution cannot cure-all. Proper pain assessments with the correct score can be one element of pain management (Liljamo & Kinnunen, 2020). If assessments are missing from the patient record, providers cannot take corrective action on how much or how little to prescribe for pain. It would create a cycle of overmedicating the patient, which in fact, the patient's pain could have been controlled sooner with proper pain assessment management (Liljamo & Kinnunen, 2020).

7. Describe your plan of improvement intervention. What procedures will you follow?

The DNP project design will be a quality improvement project using the IHI Model for Improvement (Langley et al., 2009). The PDSA cycle will be implemented throughout the project. Key elements on the design would include:

- **Plan:** A failure mode and effects analysis have been conducted, and areas of concern will be identified. Tool design will be discussed with staff and management, and units will be selected for the study.
- **Do:** The design of the tool would be finalized, and clinical nursing workflow would be evaluated. The tool will go live in the facility, and baseline data will be obtained after initial education is provided.
- **Study:** Baseline data will be obtained, and second-wave data will be abstracted after one month after implementation. Final data will be obtained after two months and will be compared for the effectiveness of the tool.
- **Act:** Data will be evaluated and compared to baseline data. Based on results, a new PDSA cycle will be conducted if not successful. The tool will be evaluated, and a new cycle will be conducted. If the tool achieves 85% or higher compliance, the tool will be improved and will implement sustaining measures to continue improving our process with this new tool.

8. What is the relationship between the project team and the project participants (patients/students)? Is the project team in a position to effect change in the setting?

Our project team is consistent with management positions that affect nursing workflows. We can implement change on this project as our Assistant Chief Nursing Officer permitted it to make the project possible.

9. Where and how will you obtain data? Describe what will be collected and the source of data. Do you routinely access these data (medical records, student scores, etc.) in your normal scope of work?

Data will be collected from our Medication Administration Records system in our institutional EHR (Cerner) with a tool called Discern Analytics. After the tool has been implemented, a pain assessment auditing tool will be created to abstract all pain medications linked to the new tool. This tool will collect five new fields of data that have been developed to be compliant with the tool. The five fields are:

- Medication for pain
- Pain Tool
- Numeric Scale Score or Faces Scale Score
- Pain Location
- Pain Quality

Other data linked to this report would be the medication used with this tool, the nurse's name, unit performed, the time it was done. These are the basic requirements needed to be abstracted. Because the tool will be built specifically for our facility compliance, it will be available to access by Quality management and management personnel. The process described above falls within my normal scope of work.

10. How will you analyze your data? How will you measure if the intervention was successful?

After the electronic pain assessment tool is implemented, the pain assessments will be linked to each pain medication. It is a new process that reports would need to be created to collect data. Our IT analysts and nursing informatics will make the reports. The new pain assessment tool will go live in our facility, and after initial nursing education has been implemented, baseline data will be obtained. This data will only be collected from our medical-surgical units, consisting of our General Surgical unit, Orthopedic Trauma Unit, Geriatric Unit, and Medical Oncology Unit. The Performance Improvement Committee made this decision as these departments have the most pain medications given during a patient's stay.

Baseline data will be broken down and categorized into the following compliance metrics:

Qualifying Pain Assessments Percentage

- Total number of assessments generated as designed (Numerator)
- Total number of pain medications that would generate an assessment ordered (Denominator)

Complete Pain Assessment Percentage (All Five Elements)

- Total number of compliant pain assessments (all five elements filled out) (Numerator)
- Total number of pain medications given on that unit during a specific time (Denominator)

Incomplete Pain Assessment Percentage (Missing one or more elements)

- Total number of pain assessments missing one or more elements (Numerator)
- Total number of pain medications given on that unit during a specific time (Denominator)

Resistive Pain Assessment Percentage

- Total number of pain medication with no assessments (Numerator)
- Total number of pain medications given on that unit during a specific time (Denominator)

Data will also be collected of the initial nursing education for compliance. This data will demonstrate the percentage of nurses who took the education and if this intervention affected our outcome.

Data collection for this data comes from our Lippincott software for nursing education. Data compliance percentage will be calculated based on:

Nursing Education Percentage

- Total number of nurses completing the Pain assessment tool module (Numerator)
- The total number of applicable nurses in our facility that have a clinical role at bedside (Denominator) Nurses in administrative or clerical work would be excluded from this count.

Excluded data during our project will consist of any pain medication that has the answer of No on the question, "Medication for Pain?" It would consist of Tylenol used for fever or gabapentin used for seizures. If any medication identified for pain is used for any other reason, they will be excluded from the study.

Our baseline data will be recorded and kept for comparison after further nursing education has been done. After our second and third wave of nursing education has been completed during two months, two more sets of data will be collected. Second wave data after one month will be obtained that will include the same numerators and denominators as our baseline data. Our final set will be conducted after month two. Our second set will be our final numbers for tool effectiveness and will be compared to baseline data. It will consist of the exact breakdown as before using the same report from Discern Analytics.

Each set of data, including baseline, second wave, and final, consists of daily monitoring by our PI Coordinating team. They will monitor day-to-day compliance and report to myself and their management team to see current trends and how the tool is performing with pain assessments. Based on the nature of our system, our data collection is one day behind, so it is a retrospective approach when auditing our staff.

Finally, a satisfaction pre and post-implementation survey will be conducted. With this data, we can see how satisfied our nurses are with the current process before our pain assessment tool goes live. A post-survey will include satisfaction data for the newly implemented tool. Also, it will have a recommendation section to improve the tool in the future.

11. Describe any ethical considerations (data confidentiality, possible coercion, subject selection, risk/benefit ratio, etc.) and explain what you are doing to address these concerns.

All data for this project will be either aggregate data in control charts or deidentified patient-level data to analyze the intervention results on pre/post outcomes. Data confidentiality will be followed by not providing the nurse's first and last names. Security for patient data will follow the U.S. Department of Health & Human Services method of de-identification of protected health information in accordance with the Health Insurance Portability and Accountability Act (HIPAA) privacy rule (HHS, 2012).

12. Who is providing the necessary funding and resources for this project? If the project is conducted outside of TTUHSC and/or requires information or project participants that are not controlled by TTUHSC, please provide an appropriate letter of support.

The project's resources and approval have been granted by the UMC of El Paso Performance Improvement Committee (PIC) as a quality improvement project (Appendix A). The nurse leadership has also approved this project at the project site, including the Chief Nursing Officer or the Assistant Chief Nursing Officer (Appendix B). Finally, the project must be approved by the DNP council and the Texas Tech University Health Science Center Quality Improvement Review Board.

13. What are your plans for dissemination of project results?

Our project results will be presented to The Hospital performance improvement committee. They will also be presented to The Nursing School DNP council.
Baseline data will be shown, and final compliance data will also be presented. Based on results, recommendations for changes will be made, and sustainability measures will be implemented. If we have negative results, a new PDSA cycle will be proposed, and a redesign will be considered at this time. The Hospital performance improvement committee will vote on this. If the tool is a success, a publication will be considered based on the approval from Cerner and The Hospital.

Submit completed application to the TTUHSC Quality Improvement Review Board at QIRB@ttuhsc.edu. Additional pertinent information may be submitted as attachments. Questions may be directed to the Director of Quality Improvement Review at the above e-mail address or by phone at 806-743-4276.

Please sign electronically and attach to an e-mail – OR - print, hand-sign, then scan and send via e-mail.

Project leader Signature:

Date: _____

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