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Nursing Perceptions of Pain Assessment and Management following Congenital Heart Surgery in the CICU

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Background Patient satisfaction scores for the cardiac intensive care unit (CICU) related to pain management for third quarter 2009 were only 62% compared to the target range of 78.7%, hence, the CICU was below target for pain management as perceived by the families. As standard of practice, pain assessment for all inpatient units is documented in the electronic medical record. While nurses are generally compliant with documenting a pain score every four hours, concerns arose that pain assessments were not accurately reflecting the patient's pain resulting in less than optimal pain management.

The CICU utilizes a daily goals flow sheet to review daily goals for each patient in the unit during medical rounds. This initiative was started in May of 2009. Pain management is addressed as part of the daily goals for each patient. By utilizing the daily goals flow sheet, nursing staff became more aware of the importance of pain assessment and management and began to question the accuracy and compliance of these measures for patients in the first twenty four hours following cardiac surgery. These issues prompted the CICU to form a task force to examine nursing perceptions regarding pain assessment and management with the ultimate goal of improving pain control for the patient.

The most common pain assessment scale utilized in the CICU is the FLACC observational scale. The NIPS scale also is included in the current pain management procedure to assess newborn postoperative pain. The task force questioned whether the nurses were documenting pain accurately with the FLACC and NIPS scale. The task force decided to administer a survey to the CICU staff nurses to evaluate their

perceptions around pain assessment and management.

Purpose The purpose of this evidence-based project was to examine nursing perceptions of pain assessment and management following congenital heart surgery in the cardiac intensive care unit.

Methodology A survey was developed by the task force and administered by one-on-one interview with a convenience sample of staff nurses in the CICU following approval of the project by the Colorado Multiple Institutional Review Board (COMIRB). One of the staff nurses in CICU interviewed nurses before and after shift report regarding their perceptions of use of the pain tools and pain management in the CICU. Chart reviews also were completed by the clinical nurse specialist and pharmacist examining the amount of opioid and benzodiazepine administration given in the first twenty four hour postoperative period following congenital heart surgery.

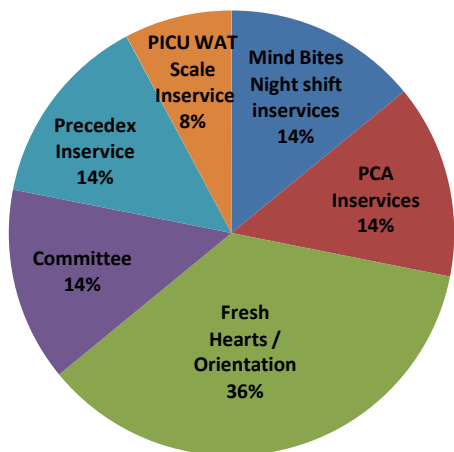
Sample Survey Questions

- ***Do you feel the need for enhancing nursing education on pain management and assessment in the CICU?***
- ***Do you believe nurses in the CICU utilize pain management tools and assessments effectively?***
- ***With your current patients, do you believe their pain is being managed appropriately?***

Results Forty one out of forty four nurses (93%) completed the survey. The average number of years as a RN was 10.51 years with a range of experience from < 1 year to 34 years. An overwhelming response from 83% of nurses felt there was a need for enhancing nursing education related to pain assessment and management in the CICU. Only 20% of nurses believed that CICU nurses assessed pain and utilized pain management tools effectively. Almost all (98%) of the staff felt comfortable using the FLACC tool while less than half the staff (42%) were comfortable with the NIPS tool.

Findings from the chart review showed that pre and post pain assessment scores were done with the administration of an opioid only 60% of the time. While patients received frequent dosing of opioids, their pain scores did not always correlate with opioid administration.

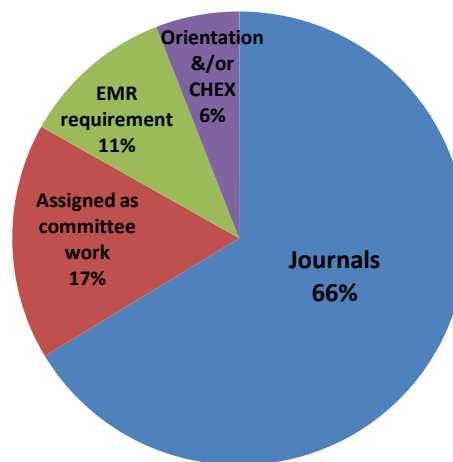
The 55% of nurses who responded “Yes” to participating in formal discussions regarding pain management did so by:



Chris Peyton presented this work as a poster at the Western Institute of Nursing 44th Annual Communicating Nursing Research Conference in Las Vegas in April where it won an award for best poster.

Congratulations to Chris and her team!

The 44% of nurses who responded “Yes” to reading literature regarding pain management and nursing practice utilized the following as their source:



Conclusion & Implications for Nursing

- Staff requires re-education regarding use of the FLACC tool and pain management strategies.
- The task force decided to eliminate the NIPS observational tool from the EMR due to inadequate knowledge on its appropriate use and less than half of the staff utilizing the tool. The modified FLACC scale now covers the newborn period.
- The nurse manager was able to approve two staff nurses to attend Pain Resource Training to assist with staff education.
- A unit based educational program is being developed for staff nurses and the task force is now an on-going committee in the CICU.
- Pain assessment and management are included as part of new hire orientation to the CICU. The same survey will be re-administered to staff once education has been completed to compare results to the original findings.
- The task force will develop a plan to re-educate all staff on developmentally appropriate pain scales available at TCH as well as peak onset and action of opioids utilized in CICU.
- Patient satisfaction regarding pain management was 81% in 2nd quarter 2010 reflecting a 31% improvement. Another chart review will be performed for pre and post pain

assessment following opioid administration in
postoperative cardiac patients after re-

education has been completed with the staff.