Brown Bag Lunch

Point-of-Care Contributions to Evidence-informed Practice
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Nursing Research Facilitator Activities in Northern Health

- Critical Appraisal Workshops
- Evidence Informed Workshops
- Research Review Committee support
- In the Know Café-virtual journal club
- Facilitation of web-delivered clinical research education sessions
- Individual support for abstract creation, poster development and oral presentations
- Planning committee activities for conferences such as Research Days
- Nurse-Led Literature Review Challenge
- Nurse-Led Poster Challenge
Evaluation of a Rapid Response Team at UHNBC
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Why Establish a Rapid Response Team?
- Rapid response systems have the potential to prevent adverse clinical outcomes, including cardiac arrest and death.
- The Institute for Healthcare Improvement made the implementation of rapid response systems a key part of the 100,000 Lives Campaign to improve the quality of care in hospitals and reduce mortality rates.
- Super Healthcare BC, a Canadian collaborative initiative for patient safety, identified rapid response teams as a way to prevent deaths in patients who are falling outside of the ICU.
- Patient-centered care, including Northern Health’s values of quality and collaboration, and improving patient outcomes were key factors in instituting UHNBC’s rapid response team.
- The development of a rapid response team at UHNBC encompasses the overarching approach for clinical programs in Northern Health. Focusing on:
  - Improving health outcomes for the people we serve
  - Improving the experience of the people we serve
  - Keeping the focus on quality
  - Bringing knowledge and best practices to health care providers.

How Did We Do?
- Our aim is to identify and address gaps that become evident over time, providing an opportunity to improve quality of patient care.

How Did We Prepare?
- Collaborated with stakeholders (intensive care physicians, nurses, pharmacists, nurses, clinical practice leaders, clinical nurse educators, managers).
- Evidence-guided practice: How is rapid response being done in this province? What education is required for critical care nurses and ward nurses?
- Engaged with rapid response teams at Vancouver General Hospital.
- Developed decision support tool development.
- Developed guidelines for criteria for calling CCOT and interventions.
- Developed simulation lab training for team members.
- Developed education for team members in effectiveness communication.
- Promoted CCOT to wards.

What is a Rapid Response Team?
- A rapid response team is a team of healthcare providers that is available to bring critical care to acutely deteriorating patients outside of the intensive care unit.
- Our rapid response team is called the Critical Care Outreach Team (CCOT) and consists of a critical care nurse, a respiratory therapist, and an intensivist.
- When acutely deteriorating patients are identified by a ward nurse, the team is activated with a phone call to the Intensive Care Unit, and the critical care nurse and respiratory therapist are paged simultaneously to that area.
- The goal is to attend within 15 minutes.
- The team assesses the patient and provides appropriate interventions with guidance from either the most responsible physician (MRP) or the intensivist, depending on the urgency of the situation.
- The team can help facilitate time to transfer to the ICU.
- The team completes follow-up visits to patients on wards who have been discharged from ICU and ward patients requiring CCOT support.
- The team also focuses on education and mentorship for new critical care staff.

The First 12 Months - What Happened?
- CCOT took 3 calls as of June 2013.
- 93 calls to the CCOT team in the first 12 months.
- 22 of the 93 calls (24%) resulted in the patient being admitted to ICU.
- 14 patients who were followed by CCOT were admitted to ICU.
- Level of intervention was addressed by CCOT, changes to level of intervention in 7 patients over 12 months.

Findings
- Most common reason for calls: medical system criteria (45%), nursing concerns (41%), and cardiac criteria (15%).
- Respiratory criteria (7%) neurological criteria (4%).
- Cardiopulmonary arrests per 1000 discharges prior to implementation of CCOT (from June to May of each year):
  - 2012/13: 2.9
  - 2013/14: 1.9
- Cardiopulmonary arrests per 1000 discharges:
  - Percentage of cardiopulmonary arrests outside of the ICU
  - Number of cardiopulmonary arrests inside the ICU
  - Number of calls in the first year:
    - 83 follow-up visits
    - 140 patients referred to ICU
    - 22 patients transferred to ICU
- Challenges identified:
  - Shifts when ICU staff were attending to high acuity in ICU or when ICU was short-staffed resulted in charge nurses unable to attend several calls within goal time frame of 15 minutes or not at all (case by case).
  - Some calls were due to ward staff unable to contact MRP and patient acutely deteriorating.
- Evaluation cards from ward staff indicate success in providing support and mentorship.

Significance of Findings
- Data analysis indicates a slight decrease in cardiopulmonary arrests after the first year of implementation of the rapid response team.
- Numbers do not always reflect the value of such an initiative, providing critical assessment and interventions when it is needed most will improve patient outcomes.
- How can we ensure these challenges are identified?
- Further and ongoing evaluation is needed.

Key Successes Identified
- CCOT is an effective support for patients at UHNRC.
- Improved communication and support for ward staff has been achieved.
- Skilled health care providers, including respiratory therapists, nurses, and intensivists.
- A critical care and rapid response system are an essential and valued core of the team.
- Mentorship and education are valuable supports provided by CCOT.
- Engaged ward staff help CCOT to provide the service to whom it is most needed.
Improving the Cardiac Patients’ Experience in Northern BC: Quality Improvement meets Research... a match made in heaven

By: Kathy Knis, Sandra Harker, Jackie Reeds, Melanie Mogen & Reina Pharness

Description of Problem

Patients at UHNBC requiring cardiac services such as angioplasty have to travel by air ambulance to Vancouver, Victoria, or Victoria for the procedure, patients were usually transferred from the Emergency Department to the Internal Medicine Unit (IMU) to await transfer to an external Catheterization Lab.

Staff in IMU had long recognized that there was a need to improve the experience for cardiac patients at UHNBC. Inconsistencies in materials and information contributed to patient anxiety. Staff also believed that streamlining the transfer process would lead to a reduction in patient length-of-stay.

Timeliness of transfer to a Cardiac Catheterization Lab

At UHNBC, between January 1, 2013 and March 15, 2013 33 patients were transferred to a receiving cardiac cath lab in the province. The median wait for transfer was 4 days with the range being 0 to 10 days. Von, V., & Weatherby (2011) summarize that “the difficulty of transfer do not seem to be driven by the medical complexities or volume of patients, per se. Instead, the transmission of care appears to come from an incompletely developed system” (p. 4).

It is interesting to note in the literature that recommendation to the home hospital appears to be an ideal that is not fulfilled for either UHNBC or the cardiac cath lab within the province of BC. Patients are routinely discharged directly home from the cath lab with no reassurance to UHNBC patients. Rokos et al. (2010) describe that “successful separation of each patient to the home hospital is dependent upon detailed two-way communication between the STEMI receiving center and the primary care team at the referral facility. In summary, the literature shows that patients requiring cardiac angiography, PCI or surgery who must be transferred from a non-cath lab equipped hospital to an appropriate receiving hospital, wait longer for their assessments and procedures than a patient who is admitted directly to a full cardiac service capable facility. This inequity has been described by the Secretary of State for Health in the UK as a “postcode lottery of care” that is unacceptable and we are determined to end it” (Von, V., & Weatherby, 2011, p. 93).

Current median wait times Jan 1 - April 13, 2013 = 6 days
Goal = 2 days

![Image of a transfer process diagram]

Patient Education

Informed consent is a basic patient right and backbone of providing ethical healthcare. Basink and Shults (1996) in reviewing patient education research found that patient education “positively related to knowledge accrual and a number of beneficial psychosocial and physical health outcomes” (p. 34). Corson, Goyer, and Theobald (2001) in reviewing the literature noted that “pre-procedural education benefits PCI patients as it reduces anxiety, fear, and resolves any apprehension of PCI” (p. 102). "Patients who receive pre-admission teaching appear to be less anxious, a factor linked to smoother medical procedure.” Corson, Goyer, and Theobald (2001) explored the information needs of patients who undergo PCI and found that prior to the procedures patients were satisfied with verbal descriptions of the procedure but did not retain all information given. Most would have preferred a written informational source (p. 125). They also learned that patients often requested more procedural information than patients themselves did. Participants suggested that patients need to be aware that although PCI may seem to be "relatively simple" it is fact a more complex process (p. 127). Without this understanding, compliance with discharge instructions or cardiac rehabilitation may be negatively impacted.

Participants in the research suggested that written, visual, and verbal material be delivered continuously both pre-procedurally and post-procedurally.

![Image of patient education content]

Solutions

Transfer Package

- Development of a patient information manual
- Provides consistent, comprehensive information
- Includes logistical details for travel and return home following procedure

New Transfer Summary Sheet

- Development of a Coronary Artery Transfer (CAT) package
- The list of required documents was posted on the front of an envelope to facilitate the gathering of relevant patient information.
- Each package included referral sheet for interests, and a revised CAT summary sheet for nurse and image coordinator.
- The transfer summary sheet was revamped to reflect the requirements by the cath lab.
- Streamlined documentation was a solution to minimize the coordination between cath labs - potentially exacerbated wait days.

Discussion

The realization for cardiac patients at UHNBC had been that they routinely waited longer than suggested best practice guidelines for transfer for angiography and PCI at a receiving provincial catheterization lab and received education in an ad-hoc manner depending on which care provider was present on the floor at the time, which floor they were being transferred from, and which nurses that particular staff was sharing with patients. Before the initiative began, Northern Health patients were receiving materials from Alberta Health, St. Paul’s Hospital and the Mayo Clinic. Consequently, some reviewed video/audios, information, came in packs.

Lessons Learned

- The potential to apply these findings more broadly is evident.
- Staff had long recognized that there was a need to improve the experience for cardiac patients at UHNBC.
- Providing consistent, high-quality patient information on angiography and PCI was a high priority for care providers in this example of quality improvement and rural-urban interface.
- Initiatives to still further improve care and outcomes for northern/rural patients are still warranted.

Sustaining the Wins

- New package, forms, and patient information materials are still being trialed through Plan-Do-Study-Act (PDSA) cycles.
- Current participation in monthly conference calls with colleagues in Vancouver to address any challenges that arise with the new process.
- Facilitators will continue to gather data on a monthly basis and share the outcomes with staff.
- The new forms and patient materials would benefit from regionalization, collection, and update with a Regional Coordinating Support Team office will facilitate this alignment.

The Lean team has expanded the quality improvement initiative by participating in the Michael Smith Foundation for Health Research (MSFHR) Nursing Research Challenge. They have completed a literature review and are writing a research paper on their experience in an effort to contribute to the knowledge base surrounding equitable access to care for rural patients.

References

- Basink and Shults (1996)
- Corson, Goyer, and Theobald (2001)
- Von, V., & Weatherby (2011)
- Rekkos et al (2013)
Background

The American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) Best Practices Guidelines were designed to serve as complete yet concise resources for health care providers and quality improvement professionals. They create a framework that can be used to prioritize and direct efforts to address postsurgical complications. 1

Catheter Associated Urinary Tract Infections (CAUTI), defined by the Center for Disease Control (CDC) as “clinical symptoms and laboratory evidence of urinary tract infection in a patient who has had a urethral catheter in place for more than two days.”

The team at University Hospital of Northern British Columbia used the NSQIP recommendations and evidenced-based research to guide practice change and decrease the CAUTI rate.

CAUTI was picked as a starting point as there is lots of evidence to utilize and was relatively “simple.”

The Results

The project work started in October 2011 with on-site data collection. Practice changes were brought forward to the staff in January of 2012.

When the staff was given ongoing education and reminders about the new protocol on a daily basis, the rate declined substantially. The goal was to bring UHIBC rates less than the NSQIP average by June of that year.

The increase in CAUTI rate after February 2013 is likely related to staffing changes that did not get the education and less emphasis on the changes that were implemented.

Implications

Simple interventions can make a big impact to patient outcomes. Constant surveillance of each person with a catheter is everyone’s responsibility, and there should be documented justification of keeping a catheter in.

Staff motivation to implement the new policies can be the most difficult part of any change. Additional education and communication about infection rate changes can help to give staff ownership of the outcomes and implement a practice change.

Next Steps

A celebration with the Surgical Staff for their amazing accomplishment in reducing CAUTI. Reviewing with staff members what was done, how it was done, the challenges seen by some of the team members involved. Discussion at these events will assist with continuation of the project and renewed enthusiasm. It is an excellent opportunity for ongoing education that is supported and implemented by peers.

The success of this project has laid the groundwork for continuing projects with NSQIP and the surgical floor to improve patient outcomes.

Further knowledge translation activities include bringing this poster forward to a different facility within Northern Health. All team members will travel to this facility and discuss with their staff members the NSQIP-led project. We will provide lunch and beverages to the busy staff to share their time with us. Discussion points will be based on the initial project and implementation, with mention of the overwhelming amount of consistent supporting evidence.

Key Points

1. Hand hygiene
2. Early removal of catheter (less than 48 hours)
3. Standard precautions (gloves and gowns)
4. Aseptic technique on insertion and maintenance
5. Maintain a closed drainage system
6. Unobstructed flow at all times
7. Keep the bag below the bladder
8. Avoid catheter use if possible
9. Nurses to be competent in catheter care/management

References

Breastfeeding in a Virtual World

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Problem:
Even with all the protective benefits of breastfeeding being well known to families, duration rates for breastfeeding continue to remain low.

Purpose:
To explore whether access to online breastfeeding information and virtual support will have an increase on duration rates for breastfeeding.

To understand how social media plays a role in breastfeeding support.

Definitions:
Social media is considered a form of communication that is within the technological world; examples of social media include blogs, Facebook, Twitter, Instagram, Wikipedia, MySpace, and YouTube.

Exclusive breastfeeding means no other liquid or solid other than breast milk from any other source enters the infant's mouth until six months of age when complementary foods are added; this excludes medications.

Social support is defined as any perceived or experienced support that encompasses information.

Social Media:
Social media has become a focal point within the health care industry when engaging with the public.

Social media has been successfully used in areas such as tobacco reduction, immunization promotion and other population health improvement strategies.

The majority of people are connected to social media.

Social media is penetrating the population independent of education, race/ethnicity or health care access.

Social media leads to connections between people.

One article was found that identified social media as a tool for breastfeeding support.

Breastfeeding:
Mothers benefit from information and support when choosing to breastfeed their babies.

Support increases duration rates and can come in many forms.

Some health benefits for infants are: increased intelligence, decreased illness, protection against breast and ovarian cancer.

Some health benefits for mothers are: decreased risk of diabetes, heart disease, and chronic pain.

Northern Health has created position papers to address modified risk factors and breastfeeding has been identified as one of the ways to reduce these risk factors in three of its papers.

Mothers who breastfeed are turning to the internet prior to accessing a health care provider.

Social support has been identified as a way to improve duration rates for breastfeeding.

Future Consideration:
Social media is being used to provide support and information within the public health realm and is not a passing fad.

Combining social media and health promotion will allow more access to all individuals in Northern Health.

Further studies on social media as a support tool for breastfeeding needs to be explored for indications of increased duration rates.

Conclusion:
Social media has been proven to change social behaviors in other health related areas.

Use of social media as a breastfeeding support tool is expected to extend breastfeeding duration.

Further information:
Please request a complete copy of "Breastfeeding in Virtual World" from the authors.

Discussion:
The use of social media is one way to integrate service and allow accessibility to breastfeeding support across the north.

Professionally monitored sites allow for accurate information.

Presently there are many YouTube videos and Facebook pages that offer support to women; consideration needs to be made on what type of support women are being offered or need to be offered to increase duration rates.

Literature Cited:


Learnings from Capacity Building Activities

• Managers can support Evidence-informed capacity building activities by recognizing the value this work adds to patient outcomes
• Dedicated time needed for teams to work on such activities (even one hour per week)
• Skill building (academic writing, searching for the evidence, abstract submission) is a needed foundation for capacity building
Nurse-led Literature Review Challenge Winners
Exploring the Impact of In-Patient Diabetes Educators on Diabetic Health Outcomes
Goals

• To improve the continuity of diabetes care and increase patient satisfaction at UHNBC
• To discover whether patients with diabetes have improved outcomes when seen during their hospital stay by a diabetes educator team
Background

• Exploring best evidence on the impact of a diabetes team with in-patient diabetes outcomes on:
  ➢ Shortened hospital stay
  ➢ Improved glycemic control
  ➢ Fewer readmissions
  ➢ Reduced long term complications
  ➢ Improved self management skills
  ➢ Patient satisfaction
Methodology

• Peer-reviewed journals (10-15 years)
• This included articles from Canada, the UK, Wales, and the USA
Findings

- All studies in the review demonstrated that education by an individual or team had the potential to:
  - Decrease average length of stay
  - Improve patient satisfaction
  - Lower readmission rates
  - Improve self management
  - Provide cost savings to the institution
  - Impact staff education
Next Steps

- Provide evidence supporting the cost savings of an in-patient diabetes educator at UHNBC through:
  - Shortened hospital stay
  - Improved glycemic control
  - Fewer readmissions
  - Reduced long term complications
  - Improved self management skills
  - Patient satisfaction
Moving Forward

• Develop an in-patient referral form to improve communication between wards and diabetes educators

• Review and communicate the type of patient that would benefit from a diabetes educator consult