Nursing and Pharmacy work together to improve Medication Delivery
Hants Community Hospital General Medicine Unit 200

Solution:
Develop a process to ensure safe, effective delivery of patients medications to the primary medication cabinets and safe dispensing of medications at the bedside

1. Unit 200 has dedicated primary Medication Cabinets in all patient rooms
2. Infection Prevention and Control Policy states that there are no special measures required for medications delivered to patients rooms who are on additional contact precautions
3. Pharmacy and Nursing staff were educated on Point of Care Risk Assessments and Hand Hygiene practices.
4. Medications are now delivered to all patients rooms according to CDHA Pharmacy and Infection Prevention and Control Policies.

Nurse Pharmacy Committee
initiated at Hants Community Hospital October 2012 with the following objectives:

1. To address issues shared by Nursing and Pharmacy
2. Review medication practices, policies and procedures that have a joint impact for Nursing and Pharmacy
3. Support and encourage a culture of medication safety and quality practice

Identified Patient Safety Risk:
Patient Medication Bins stored on countertop in Medication Room

1. Historically, medications for patients on additional precautions were kept on the counter in the locked Medication Room
2. Occasionally, Unit 200 could have 10-12 patients on additional precautions!
3. Each patient has two bins, one for scheduled meds and one for PRN meds, therefore upwards of 24 labeled bins could be on the counter at one time!

Before: Too Many Bins!
Patients on Additional Precautions: Meds were stored in the Med Room

Friendly Reminders for Nursing Staff
To decrease waste, please do not overstock supplies
When patient is discharged or moved, remember to:
- Give patient all relevant inhalers, creams, eye drops &home medications (check medication room too)
- Place all remaining medications in plastic bag
- With patient’s name tags & return to pharmacy
- Discard contaminated supplies safely
- Using Virox, wipe down the entire cupboard including doors, shelves, supply trays & medication trays

After: All Medications are delivered to patients room

Leah Macumber, RN BScN
Infection Control Practitioner
Clinical Nurse Educator
Creating An Onsite Warehouse

- On-site warehouse was constructed at the 4th floor Halifax Infirmary & staffed with a Supply Team Lead & Supply Technician.
- Warehouse is open 0700-1700 Monday-Friday & staff can be reached by pager.
- A rolling shelf system was installed.
- 500 stock & 200 non stock items have a file, location code and SAP number.
- Quota levels were determined to ensure an appropriate min/max level.
- New closet lists were created for all 13 clinics & expired items were removed.
- Each clinic has schedule days to order routine supplies.

BEFORE: many cluttered individual supply rooms

AFTER: one central, organized and efficient area for all clinics

Standardization!

- Sterile gloves
- Sutures
- Dressings
- Soluprep solution and prep sticks
- Normal Saline: Sterile & non-sterile
- Normal Saline irrigation 100 mls
- Needles
- Virox/Sani cloths
- Tongue depressors
- Kleenex

Advantages of an On-site Warehouse

- Reduced supply quotas in clinics
- Standardization of products/inventory catalogue
- Reduced loss of expired products
- Delivered by case/box dispensed by each (shared supplies)
- Central ordering on SAP
- Decrease use of clinical space for supplies
- Immediate access to supplies
- Increased availability for non-stock items
- Next day delivery of supplies from the central warehouse
- Monitoring of best product for best price
- Inventory of all supplies done biannually
- Monthly clinic supply audits to ensure compliance

Custom built wall storage and rolling shelves make supplies neat, easy to find and accessible.

Each product has a label, SAP number, product code number and unit of measure assigned to make supplies easy to find and assign cost (time savings)

Standardizing supplies ensures that we are using the best product for the best price and living Our Promise to our patients care.
Supporting Families in Recovery

Family Work

Who can benefit from Family Work?

Family Work can be helpful for all families, but has been shown to be particularly beneficial for those families affected by mental health difficulties.

Research shows that Family Work is effective in reducing stress for service users and their families and in significantly reducing relapse rates, thus helping to promote recovery in those people suffering with severe and enduring mental health difficulties.

The overall aims of Family Work are:

- Increased understanding
- Improved communication
- Build stronger problem-solving skills within the family
- Improve relationships
- Reduce stress
- Help recovery
- Help families deal with the day-to-day challenges that can arise through mental health difficulties

What does Family Work involve?

Family Work can take place in the home, unless the family wishes to meet elsewhere. A trained Family Worker will arrange to meet with you and your family together. These meetings will usually be for about an hour, and usually happen once a week.

On average, Family Work lasts for about 12 sessions. Some families have more sessions, some have less.

Family Work starts with an interview of your needs. As part of this interview, the Family Worker will meet with you and each participating member of your family individually.

How can my family access Family Work?

If you already have contact with inpatient or outpatient mental health services, ask the staff members at the site you attend.

If you are not in contact with mental health services, ask your family doctor or psychiatrist to refer you for Family Work through your local mental health services.

“We are so grateful that you are able to do this work in our home; a few years ago this would never have happened. It feel safe.”

“My daughter is opening up so much.”

Families Matter

What are the benefits of Families Matter?

- To provide families and friends who support someone with a mental health problem or illness the information, knowledge, common skills, and confidence to deal more effectively in their supportive roles
- To provide information about local community resources
- To improve the quality of life of family and friends

What to expect?

Participants will gain knowledge and practical skills through education and shared experiences in a relaxed and social atmosphere.

Why this program?

Research has shown that people experience less stress and feel more encouraged about caring for their relative/friend and themselves when they have a better understanding of mental health problems and illnesses, and how to cope with difficult situations.

What does Families Matter include?

- The sharing of personal experiences by family members trained to deliver this program
- Understanding confidentiality and information sharing, with providers
- Practical strategies for communicating
- Problem-solving techniques
- Strategies for dealing with crisis and relapse management
- Emphasis on recovery and hope
- Tips for looking after yourself
- Information on community resources
- Special topic sessions to be defined by participants

How can my family access Families Matter?

Please contact Healthy Minds Cooperative at (902) 404-3504 or healthyminds@eastlink.ca.

46 families have been engaged in Family Work

25 families have participated in one of the four Families Matter in Mental Health programs offered to-date

50 staff (all disciplines) have been trained in Behavioural Family Therapy - Family Work

5 staff have been certified by the Meriden Family Programme as trainers

12 services currently offer Behavioural Family Therapy – Family Work

—

Supported by:

Generously Funded by:

Poster created by: Patricia Dauphinee, Ginny Arsenaught and Linda McCormick
Re-Designing the Patient Safety Reporting Structure in the Department of Radiation Oncology: A Multidisciplinary Experience

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Acknowledgements: B. Kiley BSC RN BN, K. Grant RN BScN

Background and Purpose

The Canadian Partnership for Quality Radiotherapy (CPQR) recently proposed a set of standardized language for the reporting of radiotherapy specific incidents, severity scales and contributing factors, with the eventual goal of creating a National radiotherapy incident learning database. Until recently, the Department of Radiation Oncology had been using two separate systems for reporting incidents, near misses and technical variances within the multidisciplinary environment: an in-house, outdated, paper technical variance (TV) form, as well as the Capital District Health Authority electronic Patient Safety Reporting System (PSRS) that did not meet the specific language and reporting needs of the radiotherapy environment. Acting as a pilot center, the Department of Radiation Oncology used the proposed CPQR language to re-design the existing CDHA PSRS, and revised the entire quality review process to meet the needs of an increasingly multidisciplinary environment, providing a foundation for standardized reporting, and to identify educational opportunities, with the goal of changing the departmental safety culture and improving overall quality of care. The following poster showcases our changes, timelines, and experiences in this endeavor.

Previous Incident Process Flow

Dec 2011- Work Environment Analysis Group approached to take on the CPQR reporting standards. Re-formed into the Quality Review Team.

May 2012- First look at proposed changes to PSRS by CDHA Risk Management

June 2012- Multidisciplinary Leadership get first look at the proposed system

Sept 2012- Radiotherapy Student begins literature review on reporting practices, and begins to formulate research project

Oct 2012- Final revisions of PSRS using CPQR event language, severity scale, and contributing factors. Reporting system divided into 3 phases: event entry, management follow-up and quality review.

Nov 2012- Final Leadership approval, and CDHA legal reviews terms of reference and process flow for QRT

Dec 2012- Ethics approval for student research project

Jan 7-20th 2013- Research questionnaire sent to all staff

Jan 21-Feb 2013- Multidisciplinary staff education sessions on new process flow and re-designed PSRS

Feb 2013- QRT begins bi-weekly meetings to review events

May 2013- First planned Multidisciplinary educational opportunity: "Duty of Disclosure."

July 2013- Planned repeat of research questionnaire to assess successes or failures of the new process

Future Endeavour:

Departmental data feeds into the National Radiotherapy incident database for National shared learning

What We Did/Timelines

What We Did/Timelines

New Incident Process Flow

Due to the nature of our work environment and documented literature, the highest percentage of reports initiated by Radiation Therapists

Initiation of in-house technical variance (TV) form, as well as the Capital District Health Authority electronic Patient Safety Reporting System (PSRS) that did not meet the specific language and reporting needs of the radiotherapy environment. Acting as a pilot center, the Department of Radiation Oncology used the proposed CPQR language to re-design the existing CDHA PSRS, and revised the entire quality review process to meet the needs of an increasingly multidisciplinary environment, providing a foundation for standardized reporting, and to identify educational opportunities, with the goal of changing the departmental safety culture and improving overall quality of care. The following poster showcases our changes, timelines, and experiences in this endeavor.

5 Points

Previous Process Flow Summary

Just Culture

- No formalized/standardized approach for leadership to take accountability for departmental events.
- No formalized/standardized approach for involved staff interview or debriefing following an event.
- No opportunity for brainstorming/discussing contributing factors.

Open Culture

-Strained/unlimited opportunities for safety discussions or updates.

Informed Culture

-Event narratives are transcribed by Charge Radiation Therapists and distributed to Radiation Therapists only.
-Documented/contributed multidisciplinary discussions.
-Available data on departmental trends.

Learning Culture

-Opportunity for Radiation Therapy only.
-Opportunity for Radiation Therapists, based on literature.
-Reporting quality/management reporting. ~100 TV reports vs. 15-20 PSRS reports in one year.

5 Points

New Process Flow Summary

Just Culture

- First notifications to Radiation Therapy and Medical Physics management following all event entry.
- Formalized/standardized approach for involved staff interviews and debriefing following an event. Creation of Root Cause Analysis and Event Timelines when necessary.
- Opportunity for brainstorming/discussing contributing factors using Ishikawa Design

Open Culture

- Safety discussions through bi-weekly Newsletter and staff meetings in Medical Physics and Radiation Therapy.

Informed Culture

- Event comments report generated electronically and distributed monthly to: Radiation Therapists, Radiation Oncologists, Residents, Medical Physics, Dosimetry, Electronics and Clinical
- Bi-weekly multidisciplinary discussion
- Weekly posting of stats and trends.

Learning Culture

- Opportunity for Radiation Therapists, Radiation Oncologists, Residents, Medical Physics, Dosimetry, and Clinical.
- Opportunity for Radiation Therapy student research project.

Reporting Culture

- Predominantly Radiation Therapists, based on literature.
- Regular reporting system.
Meeting milestones!!
Eliminating Shadow Charts and Improving Patient Safety in a busy Endocrinology Clinic

What are shadow charts?
Shadow charts are paper copies of original charts retained apart from the primary custodial record.

Why are shadow charts a patient safety concern?

- Copies of patient information may not be as current as the primary record because other’s contribution to the primary record may not be present.
- Original pieces of documentation may never make it to the primary record (HPF) so the primary record is incomplete.

What was the depth of the issue in the Endocrinology clinic?
Shadow charts filled 1 large room, 1 bathroom and were present in numerous offices. One FTE was dedicated to creating shadow charts. This clerk’s time was spent photocopying, filing, printing reports and the last priority was sending original documentation to HPF.

How do you even begin?

| Gather HPF, IT, STAR, DoM stakeholders | Secretaries on board to customize for their MD and get access |
| Update computers, phones, room setup | Go live date set January 7 |
| ID gaps in system and workaround | Send all shadow charts to HPF so we have only 1 patient record |

BEFORE

AFTER

What do you do without shadow charts?

How will we get our information?
We had to make these systems work for us. The technology available was not being used to its full functionality.

Existing computers were old and slow and did not have the proper software or access to the required programs.

What was key to this success story?

✔ A clear vision that things had to change. This was not acceptable!
✔ We planned for months! We anticipated what was needed and made it happen.
✔ Customized program views for each provider based on their needs
✔ Ongoing support of IT- Mary Eileen MacPhail, Diane MacLean, Brian Crocker
✔ In-depth planning with E-Health- Carol Snair, Colleen Adekayode, Brenda Harrington
✔ Dedicated Endocrinology Clinic team

Where are we now?
There are thousands of shadow charts that need to be scanned into HPF. This is anticipated to take several more months to complete. New shadow charts have not been created since January. As patients are being seen their entire records are going to HPF.

System wide Recommendations

• All tests processed at CHDA labs need to be registered so they are available for view in Clinical Portal, HPF, Share Provincial Portal
• All out of province lab results need to be scanned into HPF for viewing
• Single sign on for computer access. To many passwords at present!

Our Promise in Action
A different today. A better tomorrow
Blood cultures are essential for the diagnosis of blood stream infections. A positive culture can lead to a definitive diagnosis and targeted antimicrobial therapy. False positives are primarily the result of skin contaminants and can result in increased costs and adverse patient events 1,2. Addition health care costs have been reported to be $1000-8000 per contaminated blood culture. These costs are related to antimicrobial use & extended hospital stay 2,3.

Different methods have been published to decrease contamination rates including systematic skin preparation, disinfection of the top of culture bottles and use of a phlebotomy team 1. Patton et al. 2010 Implemented a new technique, initial specimen diversion technique (ISDT) which lead to a significant reduction in blood culture contamination rates (see pictures below). Basis for ISDT is the hypothesis that since the skin is not sterilized by antisepsis the needle plug is the source of culture contamination.

Contamination rates at Capital Health

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total coliforms</td>
<td>1.0%</td>
</tr>
<tr>
<td>S. pneumoniae</td>
<td>2.0%</td>
</tr>
<tr>
<td>S. aureus</td>
<td>3.0%</td>
</tr>
<tr>
<td>Bacillus sp.</td>
<td>4.0%</td>
</tr>
<tr>
<td>Coryn/Dipht</td>
<td>5.0%</td>
</tr>
<tr>
<td>Coag neg Staph</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Implementation of ISDT in our institution has lead to a significant decrease in blood culture contamination rates. This has likely translated into significant cost savings. Estimated annual savings as a result of this intervention: $143,000 - $1,144,000.

Discussion

This was a simple intervention with minimal cost and many patients benefited! The savings are ongoing. We suspect savings are on the lower rather than the higher end of the estimates. We do not know the extent to which the ISDT was implemented, likely very high with the phlebotomy team but uncertain elsewhere. Likely with 100% compliance further benefits can be realized. We think this program could easily be implemented in other health regions.

Conclusion

Implementation of ISDT in our institution has lead to a significant decrease in blood culture contamination rates. This has likely translated into significant cost savings.

References: