DECEMBER **2018**

Thompson Region
Division of Family Practice
A GPSC initiative

POLYPHARMACY RISK REDUCTION IN ACUTE CARE

FINAL REPORT

CONTENTS

PHYSICIAN LEADS:

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Thompson Region Division of Family Practice
A GPSC initiative

SharedCare
Partners for Patients

EXECUTIVE SUMMARY

In May 2016 the Polypharmacy Risk Reduction project was approved for funding by the Shared Care Steering Committee. The Thompson Region Division of Family Practice embarked on this project through the three care environments: acute, residential, and community.

The Shared Care Polypharmacy Risk Reduction in Acute Care project supported co-developed strategies to improve medication journey processes and communication within the acute sector. This included the mapping of the patient medication journey and sustainable discharge medication counselling. The project group included specialists, family physicians, hospitalists, Interior Health (IH) administration, nursing staff, pharmacists, and a provincial physician lead.

After mapping the current patient medication journey from emergency through acute care to discharge and later community pharmacy to identify gaps and challenges, the working group to focus on the following main areas:

- Discharge Prescription
- Medication Mentorship

The project trialed a process to enhance the discharge prescription and identified systems challenges associated with changing behaviours and practices. The group has many recommendations, including to the Ministry of Health to embed a polypharmacy directive with goals, deliverables, and incentives, and continues to push for electronic medical record interoperability. Education and mentorship will continue to play a large role in reducing polypharmacy risk and changing culture.

The purpose of this report is to review and highlight the work of this project. The timeline for this project spanned over two years, from approval in May 2016 to the wrap up of acute work in June 2018. Polypharmacy Risk Reduction in Community Care will continue until March 2019. The report includes project background, an overview of the activities undertaken, key learnings, challenges, and recommendations.

BACKGROUND

This project built on the 2013 Transition in Care: Polypharmacy project as an output of the Thompson Region's *Transition in Care Frail Elderly project: Acute to Community – Communication and Information Exchange for Frail Elderly Patients*. The Thompson Region is also participating in the GPSC Residential Care Initiative, which embeds meaningful medication reviews as one of the five best practices. Aspects of the Polypharmacy Risk Reduction project in residential worked in parallel with the GPSC Residential Care Initiative. In addition, the Thompson Shared Care Polypharmacy Risk Reduction and Shared Care Access and Continuity of Care for Older Adults projects have identified the need to conduct mentorship opportunities in the acute and community settings.

The acute aspect of the project aimed to support polypharmacy risk reduction by focusing on improving medication journey processes and communication within the acute setting, including mapping of patient medication journey and sustainable discharge medication counselling. The Polypharmacy Acute Working Group was established in October 2016 and included many individuals who were involved in the previous project plus those with a focus on acute. The project focused on the medication journey and mentorship.

The Thompson Region Polypharmacy Risk Reduction proposal outlined an overarching project objectives and benefits, which are as follows:

Project Objectives:

1. Robust knowledge exchange, via case study approach, between family physicians, specialists, allied health, patients and family, increasing awareness and cultural shift around polypharmacy risk reduction. Includes mentorship program, clinical learning session, circle of care team training, and communication materials.
2. Co-develop and implement tools and processes, across the care environments to support better medication management (acute, residential, and community) between specialists, family physicians, and pharmacy. May include care plans, medication reviews, and communication processes.

Project Benefits:

- Enhanced support for meaningful medication review processes in acute, community, and residential.
- Increased patient, caregiver, and family input into medication review process and goals of care.
- Increased sharing of information and improved communication about medication management between the three care environments and care teams.
- Improved patient and family awareness of medications.
- Enhanced team approach to medication journey across the care environments.
- Increased public awareness around polypharmacy.

PROJECT OVERVIEW

Patient Journey Mapping

The first project activity was a mapping exercise of the medication pathway of Royal Inland Hospital in Kamloops, which took place on November 16, 2016. The map highlighted the medication flow from entry to the ED, to an in-patient medical unit, and the transition of a patient to a community pharmacy (Appendix A). The map uncovered 32 major polypharmacy challenges, including the need to develop a process for medication reconciliation at discharge. Through multidisciplinary discussion these principles were identified:

1. Facility based physicians acknowledged that they have to take ownership for the quality of the medication discharge prescription
2. Unit clerks could support physicians by providing the best possible and current medication lists at the same time
3. Processes need to be simple and straight forward

The team worked off a medication journey map and identified a number of areas individual departments can work on. This included:

- Patient Voices Network- PVN responsibility on educating patients around polypharmacy
- Pharmacy Department- staffing levels, defining scope of practice, defining roles and responsibilities
- Medication Safety Committee- addressing organization and layout of medication list.

The project team worked in conjunction with the Interior Health Quality Improvement team. IH already had plans around medication reconciliation and EMR systems. Communication ensured work was not duplicated.

Discharge Prescription

The main focus of the Thompson Region polypharmacy risk reduction work was on an adequate discharge prescription. Following the mapping session, the project group identified a realistic area of improvement and agreed to focus on 4 North as it already had team-based rounds which include allied health and pharmacy. They also utilized a discharge toolkit. They opted to run a PDSA cycle of the discharge process and toolkit. The trial was eventually carried out on 7 North as well.

The project team created two processes to support the physicians to complete a discharge prescription:

1. ABCD's for Physicians: How to Not Mess Up the Discharge Prescription (Appendix B)
2. ABCD's for Unit Clerks: How to Help the Physician Not Mess up the Discharge Prescription (Appendix C)

The processes were developed as step-by-step guides for physicians related to medication reconciliation to create a best possible discharge description. In 2017 the physician lead presented the processes to Royal Inland Hospital Physician Medical Staff Association and had four specialists agree to participate in the trial. The Interior Health quality improvement consultant presented the processes to unit managers and brought four medical units on board for the trial. The ABCD processes were trialed with four specialists on four medical units.

Following the trial, focus group evaluation sessions were held with the participating physicians and unit clerks to capture the trial's successes and challenges (Appendix D). The results of the trial and the evaluation report led the project group to submit an abstract on the ABCDs for Physicians: How Not to Mess up the Discharge Prescription, which was presented at the JCC Champions of Change at the Quality Forum.

The discharge prescription is now monitored under the Quality Improvement team at Royal Inland Hospital. The QI team host monthly meetings to discuss how to promote utilization of the discharge prescription and how to do so. These meetings include representation from internal medicine, surgery, and hospitalist departments. The current process is to triage to a pharmacist in surgical cases. The Rapid Access to Internal Medicine clinic is also accepting patients who were identified as having medication related issues at hospital admission. An at-risk profile was developed for triaging referrals. The IH group also worked to address the layout and organization of medication forms to increase clarity.

JCC Champions of Change

On February 23, 2018 the specialist physician lead, Dr. Joslyn Conley, and project lead, Laura Becotte, presented the ABCD's of How to Not Mess up The Discharge Prescription at the Quality Forum.

The trial uncovered the following themes:

- Current MRP culture can be a safety issue
- Paper methods are prone to errors
- Information is not going to appropriate parties

The team feels confident that the following changes will help to reduce discharge prescription risk:

- Strategy to support physician colleagues
- Multiple points of contact for discharge prescriptions (patient, community pharmacy, specialist and MRP)
- Indications included on prescription
- Robust interoperable EMR system

Medication Mentorship

The mentoring opportunity was intended to foster a strong culture among the family physicians to approach medication reviews as a structured opportunity to ensure that all medications are clinically indicated. The first phase of the mentoring aspect of the project focused on physicians already registered in the GPSC Residential Care Initiative, and the second phase focused on the acute sector.

A medication mentoring training session took place in June 2017 with the goal to build capacity of physicians in the Thompson Region to mentor other physicians in polypharmacy risk reduction through meaningful medication reviews. The session utilized a case-based group interaction format to increase the knowledge and confidence of local physicians in mentoring colleagues and in developing local processes to support the mentorship approach for conducting meaningful medication reviews. The learning outcomes were that physicians will:

- Further develop their confidence and skills for interaction with another adult learner.
- Further develop their confidence and skills for coaching other physicians to take on the mentorship role.
- Understand key elements of mentoring other physicians for meaningful medication reviews, including goals of care discussions with family/caregivers as well as the use of clinical resources and medication review approaches.
- Have an increased understanding of and confidence for getting started as a mentor.
- As a local group, have an increased understanding of and confidence for getting started for mentoring in the community.

Four community family physicians, one hospitalist, and one specialist were trained in the facilitated "Train the Mentor" session. The results of the evening were positive; 100% of respondents indicated that they agreed or strongly agreed that they met the learning objectives of the training session (Appendix E).

The hospitalist mentor trained additional hospitalists on the approach to person-centred medication decisions. There has been limited interest from physicians to participate.

KEY LEARNINGS

- When the acute group tried to improve the discharge process, they ran into problems with behaviour change. The process gathers information from different places that are difficult to access. Surgeons are not comfortable or familiar with this process.
    - Discharge prescription should be a best medication review and it is not. It is helpful when there is a pharmacist involved. This whole process is prone to error.
    - Partnership with acute care pharmacists was important and helped ensure all providers worked to their scope and expertise. Pharmacists can provide meaningful medication reviews. Their expertise has been especially well-received on surgical floors.
    - The Interior Health discharge medication form is confusing and can be problematic for communication. Further work will be done to improve this through an IH initiative.
    - Surgeons really struggle with medication review and would prefer to have support with discharge medications.
- Culture and behavioural change have been major challenges and it is difficult to instill best practices. A Ministry of Health directive outlining goals and deliverables, and potentially incentives, would help uptake.
    - Polypharmacy as a health risk needs to be brought forward as its own diagnosis so a review happens more often.
    - The project has had more of an impact on providers than patients but more could be done.
    - Systems change is what is really necessary to embed polypharmacy risk reduction as a health care priority.

CHALLENGES

- There were limited staffing levels at the pharmacy department at Royal Inland Hospital and the hospital was operating overcapacity. The pharmacy department worked on defining their roles, referral criteria, and current abilities to provide meaningful medication reviews with patients.
- Lack of interest from physicians and specialists working in hospital. The surgical department did not want to be involved as they felt they lacked the knowledge to do a meaningful medication review with complex patients. They were encouraged to ask for medication consults from internal medicine as needed.
- Engaging patient groups was difficult. We attempted to work with advocacy groups on patient information at discharge and post discharge but were unable to get support.

RECOMMENDATIONS

The following recommendations were made to continue to offer the program sustainably:

- Measurements for discharge prescription would be beneficial and would encourage more uptake.
- The discharge prescription needs to be electronic and measurable.
- Define and build metrics for polypharmacy risk reduction into the healthcare system.
- Continue to offer mentoring to physicians working in Royal Inland Hospital.
- Support the surgery department regarding medications and polypharmacy with pharmacist support.
- Ensure there are multiple points of contact for discharge prescriptions (patient, community pharmacy, specialist and MRP).
- Include indicators on prescriptions to reduce medication errors and enhance communication.
- Surgery needs its own pharmacist.

The following recommendations were made for Ministry of Health consideration:

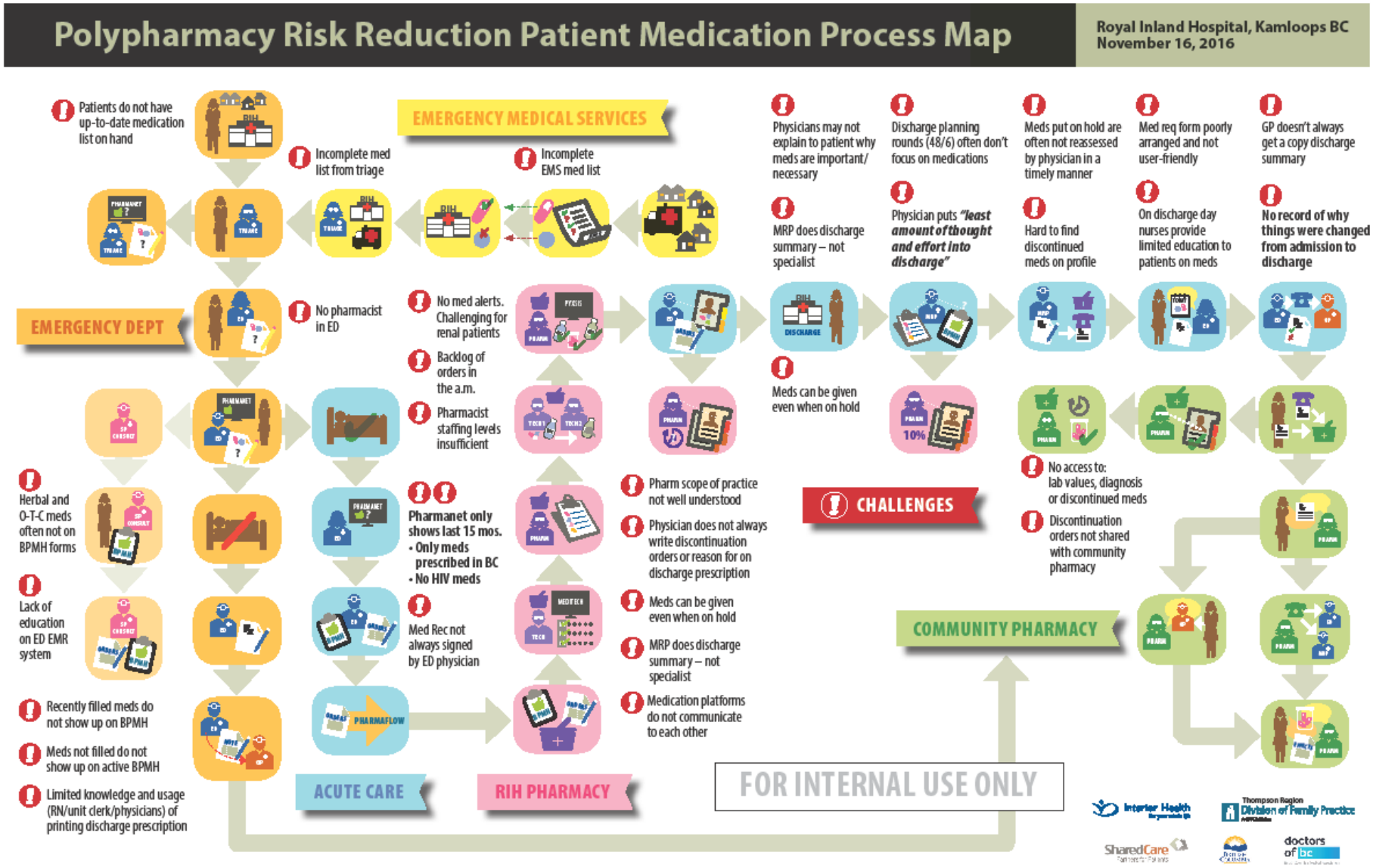
- Make polypharmacy its own diagnosis, suggesting referral to internal medicine for reviews.
- Create billing codes for detailed medication reviews during complex discharge.
- Provide incentives for reducing polypharmacy to physicians and pharmacies.
- A robust interoperable electronic medical system is essential.

CONCLUSION

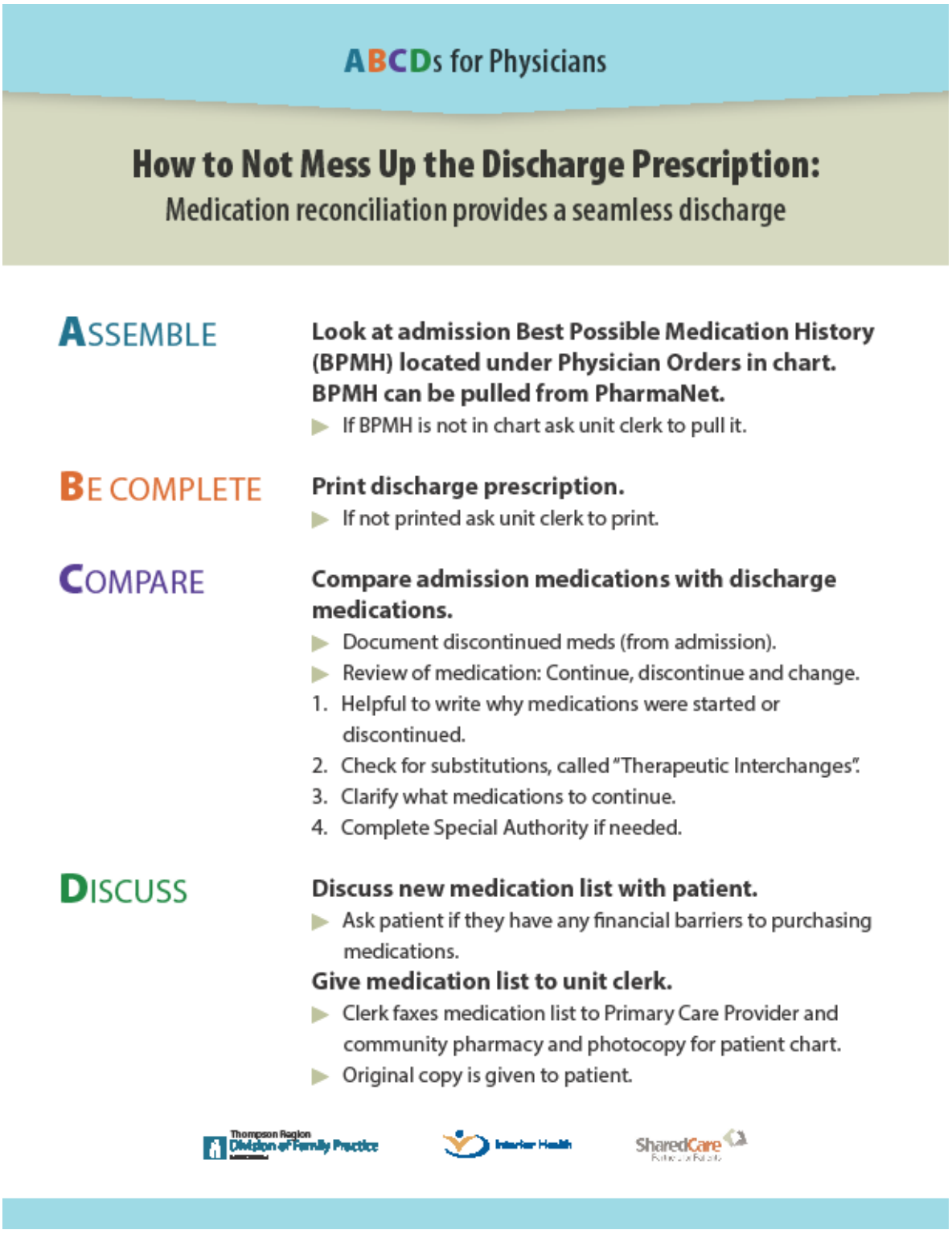
The Polypharmacy Risk Reduction project focused on the acute sector offering the opportunity to explore a process to enhance safe best possible discharge prescription and a mentorship approach to reducing polypharmacy. The project faced significant challenges mostly related to behavioural change from physicians for meaningful medication reviews. However, it did receive support from many departments and providers at Royal Inland Hospital in regard to mentorship for polypharmacy risk reduction.

The project benefitted from the leadership and guidance of Dr. Joslyn Conley and Dr. Janet Bates, as well as the other physician champions and members of the working group. The Division would like to thank all project partners including family physicians, speciality and surgical physicians, and Interior Health staff for their continued energy in working towards a better health care system for patients.

APPENDIX A


Polypharmacy Risk Reduction Patient Medication Process Map
Royal Inland Hospital, Kamloops BC
November 16, 2016
Patients do not have up-to-date medication list on hand
Incomplete med list from triage
EMERGENCY MEDICAL SERVICES
Incomplete EMS med list
EMERGENCY DEPT
No pharmacist in ED
No med alerts. Challenging for renal patients
Backlog of orders in the a.m.
Pharmacist staffing levels insufficient
Herbal and O-T-C meds often not on BPMH forms
Lack of education on ED EMR system
Pharmanet only shows last 15 mos.
• Only meds prescribed in BC
• No HIV meds
Med Rec not always signed by ED physician
Recently filled meds do not show up on BPMH
Meds not filled do not show up on active BPMH
Limited knowledge and usage (RN/unit clerk/physicians) of printing discharge prescription
PHARMAFLOW
ACUTE CARE
RIH PHARMACY
Pharm scope of practice not well understood
Physician does not always write discontinuation orders or reason for on discharge prescription
Meds can be given even when on hold
MRP does discharge summary – not specialist
Medication platforms do not communicate to each other
Physicians may not explain to patient why meds are important/ necessary
MRP does discharge summary – not specialist
Discharge planning rounds (48/6) often don't focus on medications
Physician puts "least amount of thought and effort into discharge"
Meds put on hold are often not reassessed by physician in a timely manner
Hard to find discontinued meds on profile
Med req form poorly arranged and not user-friendly
On discharge day nurses provide limited education to patients on meds
GP doesn't always get a copy discharge summary
No record of why things were changed from admission to discharge
Meds can be given even when on hold
CHALLENGES
No access to: lab values, diagnosis or discontinued meds
Discontinuation orders not shared with community pharmacy
COMMUNITY PHARMACY
FOR INTERNAL USE ONLY
Interior Health
Thompson Region Division of Family Practice
SharedCare
doctors of bc

APPENDIX B



ABCDs for Physicians

How to Not Mess Up the Discharge Prescription:

Medication reconciliation provides a seamless discharge

ASSEMBLE

Look at admission Best Possible Medication History (BPMH) located under Physician Orders in chart. BPMH can be pulled from PharmaNet.

- If BPMH is not in chart ask unit clerk to pull it.

BE COMPLETE

Print discharge prescription.

- If not printed ask unit clerk to print.

COMPARE

Compare admission medications with discharge medications.

- Document discontinued meds (from admission).
- Review of medication: Continue, discontinue and change.

1. Helpful to write why medications were started or discontinued.
2. Check for substitutions, called "Therapeutic Interchanges".
3. Clarify what medications to continue.
4. Complete Special Authority if needed.

DISCUSS

Discuss new medication list with patient.

- Ask patient if they have any financial barriers to purchasing medications.

Give medication list to unit clerk.

- Clerk faxes medication list to Primary Care Provider and community pharmacy and photocopy for patient chart.
- Original copy is given to patient.

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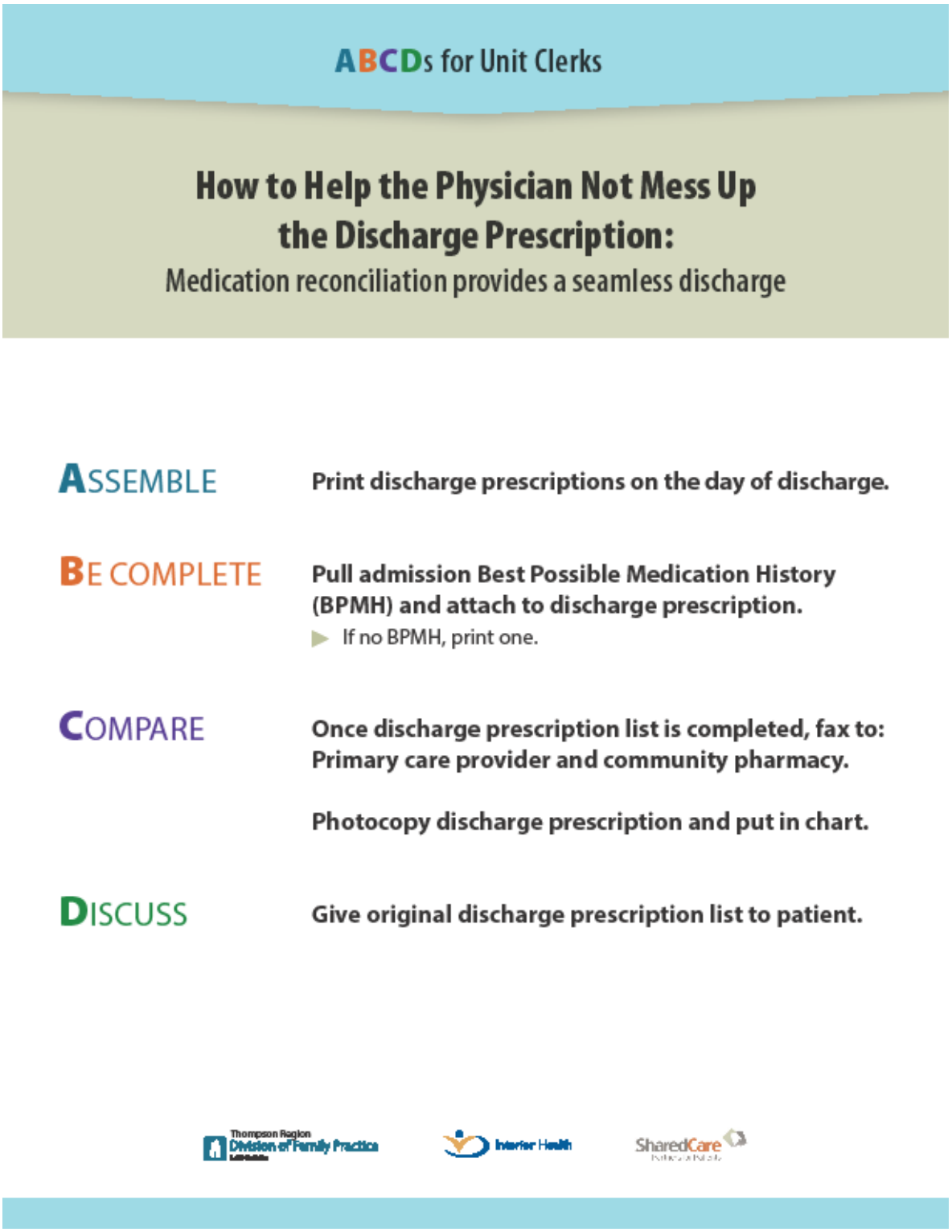
APPENDIX C


ABCDs for Unit Clerks
How to Help the Physician Not Mess Up the Discharge Prescription:
Medication reconciliation provides a seamless discharge
ASSEMBLE
Print discharge prescriptions on the day of discharge.
BE COMPLETE
Pull admission Best Possible Medication History (BPMH) and attach to discharge prescription.
If no BPMH, print one.
COMPARE
Once discharge prescription list is completed, fax to: Primary care provider and community pharmacy.
Photocopy discharge prescription and put in chart.
DISCUSS
Give original discharge prescription list to patient.
Thompson Region Division of Family Practice
Interior Health
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APPENDIX D

Shared Care Polypharmacy Risk Reduction
ABCD's for Physicians: How to Not Mess Up the Discharge Prescription
Physician Evaluation
Wednesday November 15, 2017
Friday November 17, 2017

What Worked Well	Challenges	Recommendations
• Language of the trial was captivating and funny. Written the same way as people speak. • Pharmacists being reintegrated on to floors • When BPMH is done it is really helpful • Increased physician awareness of the current state/culture around discharge prescription	<u>Operational</u> • Large part of a hospitalist job is to handle medications. Significant concern to this group. • Rarely received BPMH from unit clerks • The number of steps (could remove the be 'complete' portion of ABCD) <u>Emergency Department</u> • Medication errors from emergency department are propagated as patients move through the hospital • Medications can be held at ED and not restarted • BPMH is rarely completed with the patient in a meaningful manner <u>Pharmanet</u> • Physician cannot always print BPMH • Challenges in accessing Pharmanet because of security measures	<u>Operational</u> • Pharmanet integrated and linked to EMR (in process) • Format medication forms to clump medications (stop, hold, new) together and include indicators. • Format discharge script into pre hospital arrival and hospital stay. • BPMH from Pharmanet embedded on the same page as discharge scripts for physicians to review. • Auto generated pharmacy consults • Attach special authorizations to discharge prescriptions <u>Knowledge</u> • Develop a strategy to support surgical team – pharmacy or

	<u>Surgery Department</u> • Pharmacy services are not integrated with surgical services • Surgical patients often don't get an appropriate process for reviewing discharge medications due to lack of support for surgeon at the time of discharge (complex scripts, changes from specialists) • MRP completes the discharge prescription but may not be the appropriate person for this role • Physicians unaware of the potential gap in service at the time of discharge, ie. Med rec not occurring thoroughly and med changes in hospital not carried forward at discharge	hospitalist as MRP preferred • Partner with community pharmacy on how they would like to see med discharges – educational talk for physicians <u>Expansion of Services</u> • Pharmacy services embedded into surgical department • Expansion of pharmacy services to emergency department • Addition of nurse practitioners for medication reviews and discharges for surgical services – if pharmacy services aren't enough support • Internal medicine increasing involvement in post opt surgical patients (new with pre-op clinic starting) <u>Provincial</u> • Consult billing codes for discharge medication reviews and polypharmacy concerns • Develop measurable targets to monitor the affects and cost/benefit of interventions

ABCD's for Unit Clerks: How to Help a Physician Not Mess up the Discharge Prescription

Unit Clerk Evaluation

Thursday December 7, 2017

What Worked Well	Challenges	Recommendations
• Felt they are using the discharge prescription form and following the process • Keeping a copy of the discharge prescription in the patients chart • Discharge prescriptions can be pulled together fairly fast	<u>Time</u> • Delayed discharges need new scripts • Tacking down physicians to ensure forms are signed, billing number is included and dated takes time and can delay discharge • Organizing discharge prescriptions for late afternoons are challenging and sometimes delay the discharge. • Discharge prescriptions are challenging for patients to read and understand <u>Physician</u> • Quantities on forms can often be missed • MRP on file may be incorrect • MRP usually not receiving a copy discharge prescription <u>Nursing</u> • Gaps are noticed when the floors do not have access to a clinical pharmacist	<u>Operational</u> • Anticipation of discharge with 24 hours' notice • Discharges done in the morning to ensure additional services are in place (prescriptions sent to community, transportation, community services). • Modify language and look of patients discharge prescriptions form • Ensuring correct MRP is assigned to patient <u>Knowledge</u> • New nurses may need additional support and training around discharge process • Increase hospitalist awareness around the challenges with late discharges <u>Community Connection</u> • Discharge prescription being sent to community

	<u>Pharmacy</u> • Community pharmacist can have difficulties reading prescriptions, or information is missing (billing number, name, date). • Hospital pharmacy has set hours and may have difficulties supporting late afternoon discharges.	pharmacy and MRP at the same time <u>Acute Setting</u> • Track admissions that are directly related to polypharmacy

APPENDIX E

SharedCare
Partners for Patients

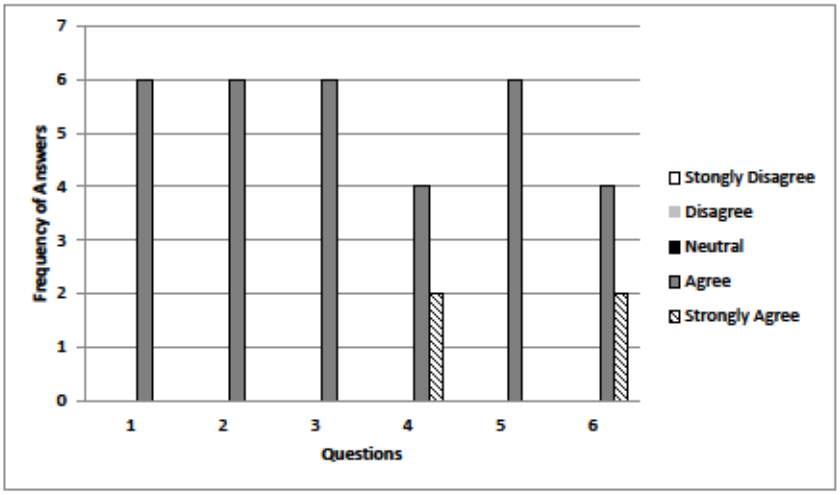
Evaluation Summary
Thompson Train the Mentor Session
June 19, 2017

Respondents:

Dr. Joslyn Conley
Dr. Janet Bates
Dr. Isabel Chung
Dr. Allison Chung
Dr. Annemie Raath
Dr. Doug Hamilton

LEARNING OBJECTIVES AS A RESULT OF THIS TRAIN THE MENTOR SESSION

Questions:
1. I feel more confident in interacting with a mentee as an adult learner
2. I feel more confident to take on a mentorship role
3. I better understand the key elements of mentoring other physicians for meaningful medication reviews
4. I feel more confident in discussing goals of care with the interdisciplinary team
5. I have an increased understanding of and confidence for getting started as a mentor
6. I feel more confident that we can start a mentorship program for our community



100% of respondents "Agreed" or "Strongly Agreed"

What was the most effective part of the program:

- Role playing (2 comments)
- Having conversations with the program faculty

SharedCare
Partners for Patients

Evaluation Summary
Thompson Train the Mentor Session
June 19, 2017

- Case study
- Interactive discussion

What was the least effective part of the program:

- Role playing
- Would have liked to review more evidence summaries

100% of participants indicated they found no commercial bias in the program

General Comments:

- I enjoyed the evening
- I was surprised at how difficult it was to think about being a mentor/coach