## The Lay of the Land Medication Reconciliation in Canada SHN - Across the Continuum

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# A Medication Reconciliation Allegory (or metaphor!)

By Mark Kearney, Pharmacist, Queensway Carleton Hospital







You come into the hospital wearing size 32 grey pants, a red shirt, blue shoes, and a black belt....



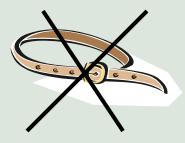


You leave the hospital

...wearing a red dress

A blue shirt ...

No belt



... and a size 32 grey thong!





# What happened?

- Unintentional Discrepancy
  - Ordered a grey thong instead of grey pants
  - > Forgot to reorder your belt



- Undocumented Intentional Discrepancy
  - ➤ Blue a better colour for you so substituted in place of red shirt but nobody was told
- Intentional Discrepancy
  - Everyone told you that you had the legs for a dress so we replaced your pants

# I'm Going to Talk About

- What we've learned in SHN! (Re medication reconciliation)
- Measurement learning and clarification
- Medication reconciliation at transfer and discharge
- Where we're going.....





# Evidence Supporting Medication Reconciliation is Strong

- The beginning January 2006 Sentinel Event Alert by Joint Commission: 63% of 350 sentinel (harm/ death) events related to medications attributed to communication issues; 50% might be resolved through medication reconciliation
- Canadian Studies -Forster, Cornish etc
- "Strong Medication Reconciliation Efforts Lowers ADE Readmissions" \*
  - \*Pharmacy Practice News Issue 8/2009; volume 36:08





## What We've Learned

- There can still be a surprising amount of resistance
- BPMH training is required
- We need national support at higher levels
- We need to build the case in a more compelling way
- Still need to work with Accreditation
   Canada e.g. triage, clinics, response rates





## **SHN Medication Reconciliation Learning**

- It is a lot of work
- Patient must be at the centre Lynn Hall "nurses interested in solving problems"
- The answers are local
- Discharge medication reconciliation may have even more impact than admission
  - Significant potential for business case for staff at discharge



## **SHN Medication Reconciliation Learning**

- Teams that have succeeded and changed their processes would NOT go back to the old way (Donna Denison story)
- It takes commitment: up front and ongoing - commitment to "one source of truth" for meds prior to admission
- Requires prompts e.g. post-discharge medication reconciliation phone call

safer healthcare

## Interior Health Region Kelowna BC

"I saw a very bright, cognitively well client and applied the medication reconciliation process during my visit. She told me that until this day she had no idea what medications she was taking and wondered why no one had discussed this with her in the past. During the course of the interview I discovered that the hospital had made changes to her medication regime that had not been discussed with the client. She was upset at the fact that the hospital had not advised her of the change but was grateful that I identified and resolved the discrepancy."

Erna Somfai RN Pilot Team Member





 Medication reconciliation needs to be marketed

### If time is money, following these steps to prevent medication errors on admission is a sound investment!



STEP 1: Extra time it takes to document admission medication history specifically on the medication reconciliation form: **0 minutes** 



STEP 2: Time needed for pharmacist to take a "Best Possible Medication History" (BPMH): 30 minutes



STEP 3: Time it takes to compare the BPMH to the admission medication orders: **5 minutes** 



STEP 4: Time it takes to identify and reconcile discrepancies between the BPMH & the admission medication orders: 10 minutes

Time & effort you didn't spend managing the outcome of a medication error....... PRICELESS!

**SickKids** 

## Monthly MedRec Newsletter

 Local stories create buy-in

## Improving our Medication Reconciliation Process: A Safer Healthcare Now! Initiative

Issue #1: JUNE 2007

A RQHR Story: Mrs. K was admitted pre-operatively in preparation for a mastectomy. Upon admission Mrs. K was asked about the prescription medications she was taking at home. During the operation Mrs. K began to bleed profusely, resulting in a critical situation, requiring a significant amount of blood products. There was no indication in the chart that Mrs. K was taking any type of medication that would thin her blood. The surgical team was able to manage the blood loss and finished the surgery. After the surgery the surgeon shared with her what had happened and explained the confusion. Mrs. K shared that she was taking several herbal products, and upon further investigation it was found that one product significantly thins the blood.

#### What is Medication Reconciliation?

A formal process of obtaining a complete & accurate list of patients' current home medications, including name, dose, frequency & route and comparing to physicians' admission, transfer and/or discharge orders. This list must include herbal products and over-the-counter medications.

Meet the Medication Reconciliation Project Team:

Dr Stewart McMillan: Department Head, Family

Jane Bowman: Executive Director, Medical Care

& Pharmacy Admin

Murray Wolfe: Director, Pharmacy Services Julie Johnson: Quality Improvement Consultant

Don Kuntz: Team Leader, Pharmacy Tricia Engel: Nurse Manager 4A

Mary Ellen Gummeson, Nancy Sellers, Denae Elford & Tricia Wilhelm: Charge Nurses

4A

Brenda Tunstead & Kathy Massett: Unit Clerks

Sandy From: IT technical expert

IT'S HERE, IT'S HERE! The system we have all been waiting for: The <u>Saskatchewan Pharmaceutical Information Program</u>, or "PIP", has been created to link all community pharmacies in the province. The team will be piloting a consolidated list of prescribed medications available when a patient is admitted to hospital, which will enhance the patient interview upon admission.



## St Michael's Hospital

## **Grand Rounds Faculty Disclosure**

"All presenters are involved in the St.
 Michael's Hospital Medication
 Reconciliation project and are
 unashamedly biased in their views on the
 subject."

Dr. Ken Balderson





# SHN! - Med Rec Teams Reporting to Central Measurement Team

### **National Statistics:**

- Over 450 teams
- Average of 100 teams reporting every month to Central Measurement Team
- Have amazing experience in acute care, LTC and home care





# Measurement of Your Progress

- If you are new, begin with baseline:
  - After your usual process of writing admission orders, create a BPMH and compare to the orders to identify unintentional or undocumented intentional discrepancies
- Create a medication reconciliation process and test it
- Measure and report discrepancies until improvement is sustained for several months
- Move to % reconciled





## Measurement Learning from Teams

Several similar interdisciplinary practice models or processes possible (acute and LTC)

Important to distinguish for measurement and implementation purposes

- 1. Proactive Reconciliation
- 2. Retroactive Reconciliation
- 3. Hybrid model of 1 and 2





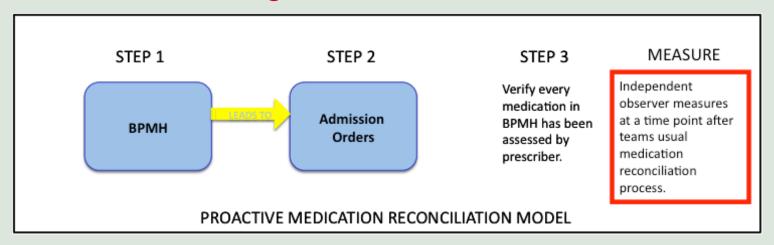
# Measurement Learning

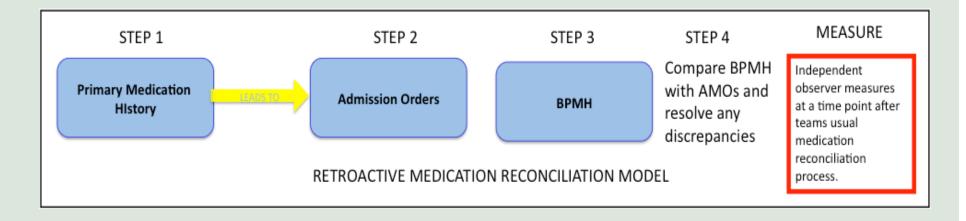
- Everyday <u>reconciliation process</u> and <u>measurement process</u> are actually distinct and different activities
- After baseline, team needs to measure after reconciliation in order to measure the quality of the reconciliation, or improvement





## When should you measure?





# SHN Measure for Admission Medication Reconciliation

Measure % of patients with formal reconciliation at admission (AC measure)

- Ensure quality is maintained by reinstituting discrepancy measurement yearly
- Denominator is total admissions (can be by unit or institution)
- Aligns with Accreditation Canada performance indicators
- Reduces SHN measurement burden





## Transfer and Discharge

- Feedback from teams: many have moved toward sustaining admission med rec and are now earnestly focused on transfer and discharge
- Principles, processes and tips on these interfaces in national calls
- Planning national webinar series to focus on discharge
- Small number of teams submitting data re transfer and discharge





## **Transfer**

- Identify which transfers
  - ICU to general unit
  - General unit to continuing care
  - When orders need to be rewritten
- Create process to bring forward BPMH to compare with transfer orders so that home meds which may have been stopped are reinstituted









#### TRANSFER

#### Medication Reconciliation and Order Form

Transfer from:	_to					
ALLERGIES/INTOLERANCES & REAC						
■None Known □ Unable to Obt     Medications at Time of			DI	IVSICIAI	N's Revie	w & Order
List all Regularly Scheduled and	PRN Medications creams, injections, inhalers)	PHYSICIAN's Review & Order Review each medication and check off appropriate box				
(In duding prescription, OTC, drops, patches, Medication, Dose, Route an		Continue as written	Change (see next page)	Do Not Order	Reason	for Not Ordering or Changing
Physician Signature:	Physician Printe	ad Name:			Date:	Time:
Medications at Time of Transfer Rec	copied By:				Date:	Time:
						Time:
Orders Verified By:					Date:	Time:
□ Orders Faxed/Sent to Pharmacy Date: Time:						PART 1 of 2
	DO NOT REMOVE O	R THIN F	ROM THE	CHART		
	Please place Reconciliat	ion Forms	in the Ord	ers Section	on	

June 2, 2008 7102-0676-7

#### DISCHARGE

#### AT DISCHARGE:

The goal of discharge medication reconciliation is to reconcile the medications the patient is taking prior to admission and those initiated in hospital, with the medications they should be taking post-discharge to ensure all changes are intentional and that discrepancies are resolved prior to discharge.

#### Compare:

Best Possible Medication History (BPMH) and the

Last 24 hour Medication Administration Record (MAR)

plus

New medications started upon discharge

to identify and resolve discrepancies and prepare the Best Possible Medication Discharge Plan (BPMDP)

# Discharge Reconciliation

Using the BPMH and last 24 hour MAR & discharge prescription as references evaluate and account for:

- 1. New medications started in hospital (from MAR)
- 2. Discontinued medications (from BPMH)
- 3. Adjusted medications (from BPMH)
- 4. Unchanged medications that are to be continued (from BPMH)
- 5. Medications held in hospital
- 6. Non-formulary/formulary adjustments made in hospital
- 7. New medications started upon discharge (from discharge prescription)
- 8. Additional comments as appropriate e.g. status of herbals or medications to be taken at the patient's discretion

## Discharge medication reconciliation

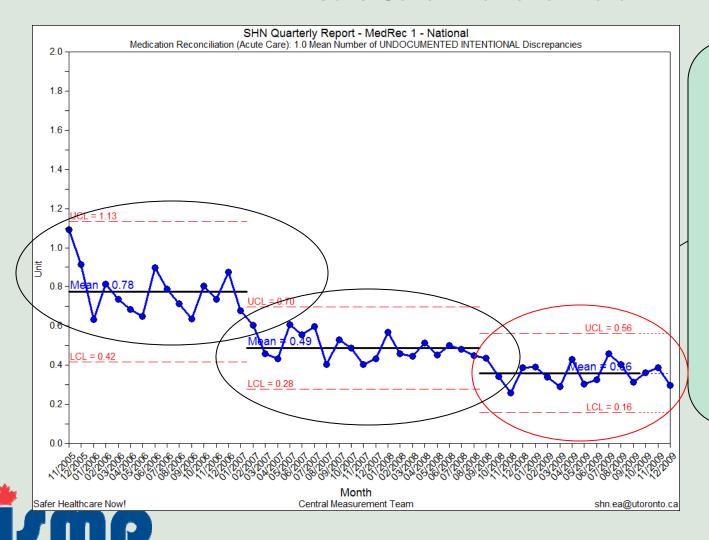
- Webinar series -January -March 2011
- Re-engineered Discharge potential to reduce hospital readmissions (Boston Medical and AHRQ)
- "Homeward Bound" 9 projects
- Readmissions as an opportunity for medication reconciliation resources





# Acute and Long-Term Care National Data 2005-2009

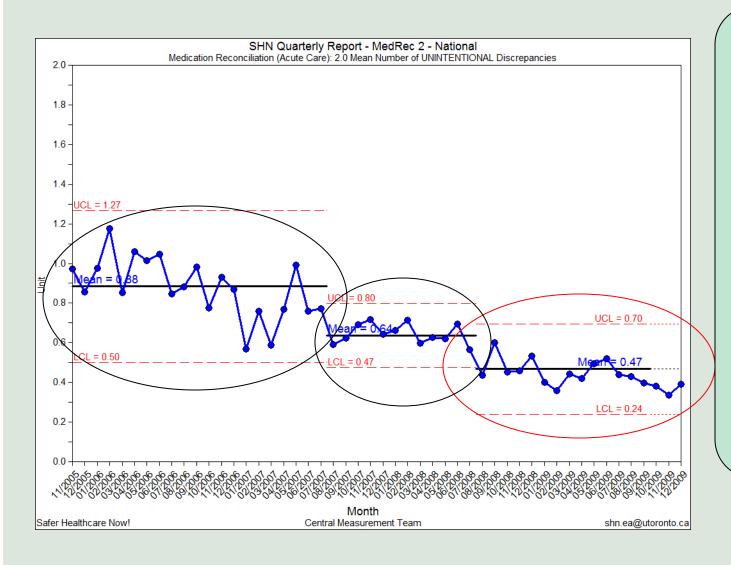
# Mean Number of Undocumented Intentional Discrepancies Acute Care - National Data



This chart is subdivided into 3 zones. The third zone begins in late 2008 and through all of 2009 – showing sustained improvement, averaging 0.36 Ul discrepancies per patient from 0.78 in 2006

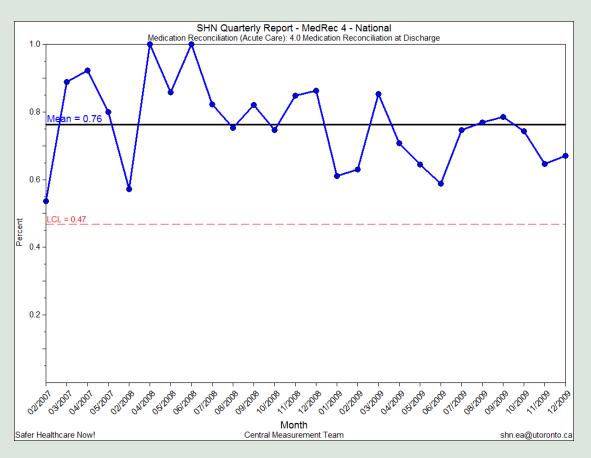


### Mean Number of Unintentional Discrepancies Acute Care - National Data



This chart is subdivided into 3 zones.
The third zone begins in late 2008 and through all of 2009 – showing sustained improvement and holding gains, averaging 0.47 unintentional discrepancies per patient from 0.88 in 2007-2008.

# Percentage of Patients Reconciled at Discharge Acute Care - National Data



Data is scattered due to small sample size, average percentage of patients reconciled at discharge is ~ 76%.

Relatively new measure for SHN! teams.

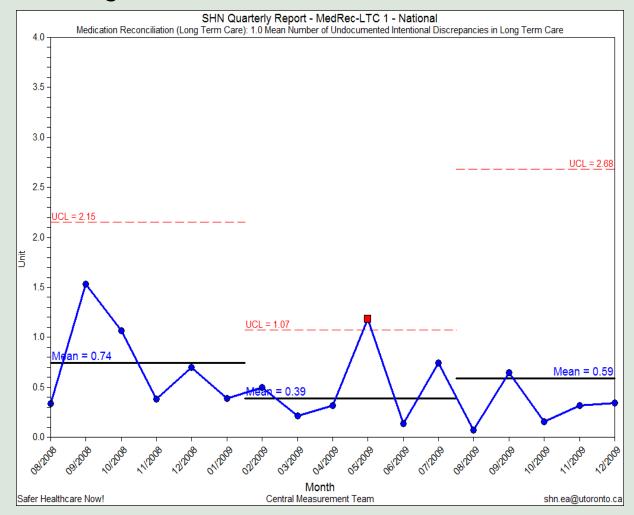




Mean Number of Undocumented Intentional (UI)

Discrepancies

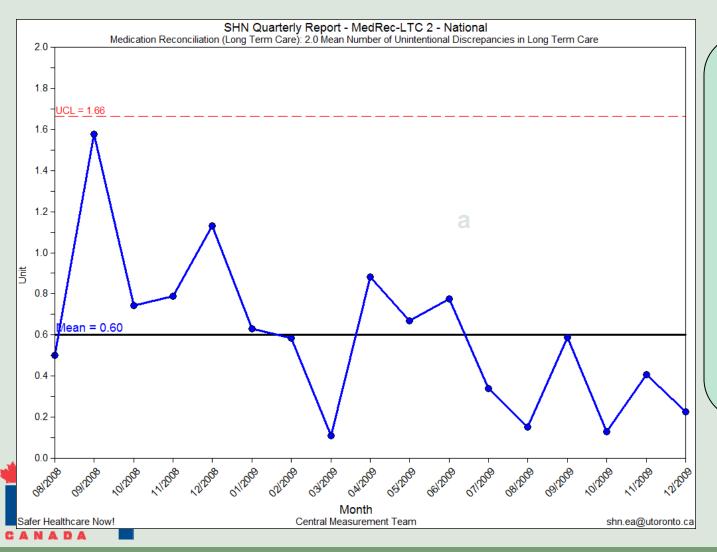
Long-Term Care - National Data



With an ever increasing number teams joining the campaign since August 2008 in Longterm care - (a total of 63 teams reporting data), the UI discrepancies have been fluctuating due to teams being at various stages of implementation. The mean increased from 0.59 from 0.39 over the last year. We anticipate an improvement in 2010 as teams learn how to

measure and improve their processes

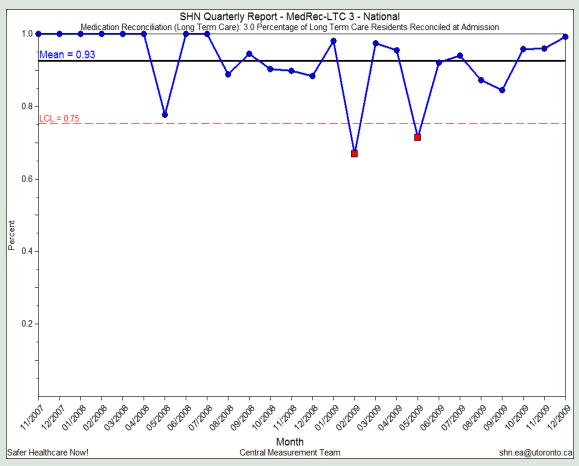
### Mean Number of Unintentional Discrepancies Long-Term Care - National Data



Between July to December 2009, there has been an trend towards sustained improvement.



### Percentage of LTC Residents Reconciled at Admission Long-Term Care – National Data



The percentage of LTC residents reconciled at admission has shown a trend towards improvement in the last 3 months in 2009.





### Medication Reconciliation Homecare

- SHN! Homecare GSK available NOW
- Evidence shows significant issues with medication errors in home care.
- Have identified a process and tools
- Webinar series open to all fall 2010







## Homecare Pilot Project



- To develop/validate framework to aid homecare providers in the implementation of medication reconciliation into care delivery processes.
  - Took into consideration the unique challenges of the homecare delivery setting in Canada.
  - Done by developing and testing medication reconciliation strategies for implementation in the homecare setting.



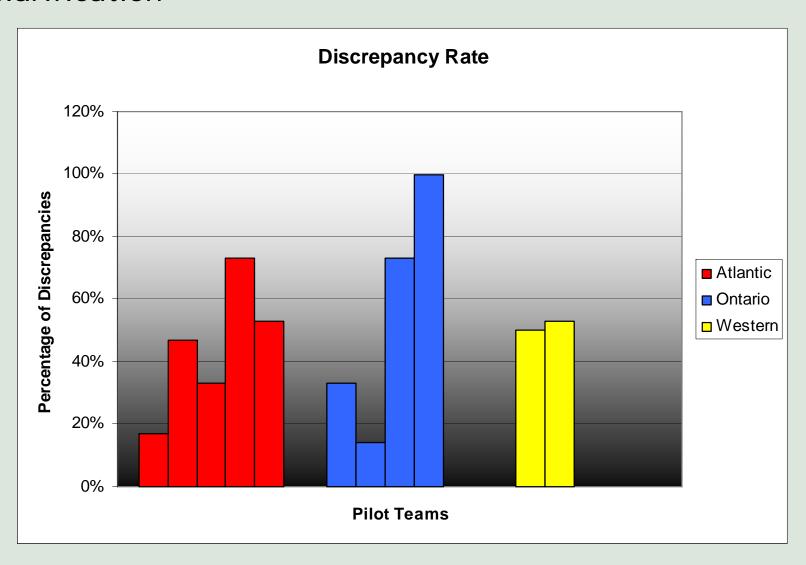
## What Home Care Teams Did?

- Applied a structured medication reconciliation process to targeted client populations
- Tested tools, guides and measures to determine what works and doesn't in home care setting.
- Collected data on 611 clients
- Identified challenges unique to medication reconcilation processes in this sector





# OVERALL: Percentage of discrepancies that require clarification



### **Acute Care**

- Excellence and frustration
- IT vendors have more medication reconciliation modules available
- Most acute care is still paper-based
- More linking with community practice on horizon (e.g. PIP and MedsCheck)





## Long Term Care

 In spite of several collaboratives - low enrolment in SHN- many LTC sites could benefit from SHN







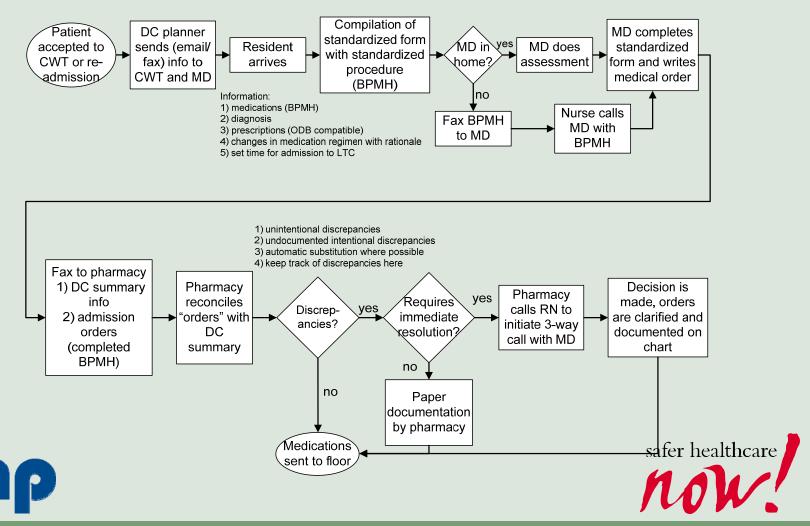
### Inverary Manor LTC: Transfer Form

Inverary Manor  Most Current Medication List and Transfer/Discharge Orders File this form with the Physician Orders at Manor Copy to receiving facility file		Addressogr	aph					
Weight:								
Allergies:				,	Advers	se Reactions:		
Most Current Medication List				Physician Orders: To complete upon discharge from Hospital				Time of Last Dose
Medication: Including topicals, treatments, inhalations, patches, OTC, drops, injections, herbals, alcohol		Time of Last Dose		Discontinue	New Order Include duration	Reason		
List complied by: Time	) 3:			   	Jpdate:_	ed by:Time:		
	ə:					ibing Physician:Time:		_

Provides
 acute care
 with
 discharge
 med rec
 process

### Kaizen Event at Ontario LTC (Castleview)

### Improved CWT Process for Medication Reconciliation



# Supports for Medication Reconciliation

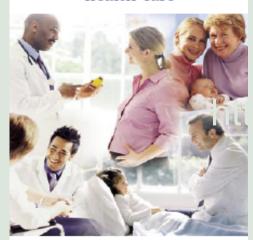




### **British Columbia**

#### **BCHealthGuide**

Patient Safety-Tips to help you take an active part in your health care



Information for Patients, Families and Care Providers



### **BC** Health Guide

www.bchealthguide.org





### Medication Card



### It's Safe to Ask About Your Medications Vous pouvez poser des questions au sujet de vos médicaments



Share your medication list with your doctor, nurse and pharmacist. Carry this card with you at all times! Communiquez votre liste de médicaments à votre médecin, votre infirmière et votre pharmacien. Ayez cette carte avec vous en tout temps!								
Name/Nom:		Family	Family Doctor's Name/Nom du médecin de famille :			Medical History/Antécédents médicaux :  ☐ diabetes/diabète ☐ high blood pressure/haute pression ☐ heart disease/maladie de cœur ☐ breathing problems/problèmes respiratoires ☐ other medical problems (list below)/ autres problèmes médicaux (veuillez préciser)		
Manitoba Health Registration #/N° d'immatriculation Santé Manitoba :			Phone/N° de téléphone : Emergency Contact/Nom contact en cas d'urgence :					
Personal Health ID #/N° d'identification personnelle (9 numbers/chiffres) :		Phone	Phone/N° de téléphone : Pharmacy Name/Nom de pharmacie:			My allergies or bad reactions to medications: Allergies ou réactions indésirables aux médicaments :		
Medical Plan #/Autre nom et Nº d'assurance santé (e.g. Blue Cross) : 			Completed Health Care Directive/une directive en matière de soins de santé?  Yes/Oui No/Non					
INDIQUEZ TOUS LES MÉDICAME	LIST ALL MEDICATIONS THAT YOU TAKE. INCLUDE HERBAL MEDICINE AND VITAMINS.  INDIQUEZ TOUS LES MÉDICAMENTS QUE VOUS PRENEZ, Y COMPRIS LES PLANTES MÉDICINALES ET LES VITAMINES.  Update your list by crossing out old medications and adding new ones!/Mettez votre liste à jour en rayant les vieux médicaments et en ajoutant les nouveaux!							
Medication name Nom du médicament	Strength Puissance	How much Quantité	How often Fréquence	Date/ Started/Début		Reason for taking Motif de l'administration	Who prescribed Qui a prescrit	
Medication name Nom du médicament Example: My drug Exemple: mon médicament	20 mg 20 mg	1 tablet 1 comprimé	2 times a day 2 fois par jour	May 1, 2008 1° mai 2008		blood pressure haute pression	Dr. Doe Dr Tremblay	
GENCY								

If you have questions call your pharmacist, or, The Manitoba Information Line for Everyone (474-6493). Si vous avez des questions, téléphonez votre pharmacien ou la ligne d'information publique en composant le 474-6493.



### It's Safe to Ask

Ask your doctor, nurse or pharmacist...



## It's Safe to Ask

www.safetoask.ca

### Provincial Electronic Medication Databases

Provinces	Provincial Electronic Medications Database	ER access	Capability to Print a BPMH Form
ВС	Pharmanet	Yes	Yes
АВ	Alberta NetCare HER Pharmaceutical Information Network (PIN)	Yes	No
SK	Pharmaceutical Information Program (PIP)	Yes	Yes
MB	Drug Programs Information Network (DPIN)	Yes	No
ON	Drug Profile Viewer (DPV)	Yes	No
QB	QSIM	No	No
PEI	Drug Information Systems (DIS)	Yes	No
NFLD	The Pharmacy Network	Yes	No
NB	Prescription Drug Program	No	No
NS	Nova Scotia Hospital Information System (NShIS)	No	No



### http://telushealthspace.com/





















Home | Site Map | Contacts | telushealth.com | Français





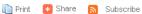
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About Our Partners & Sponsors For Ecosystem Partners

News & Events

Consumer Health Think Tank









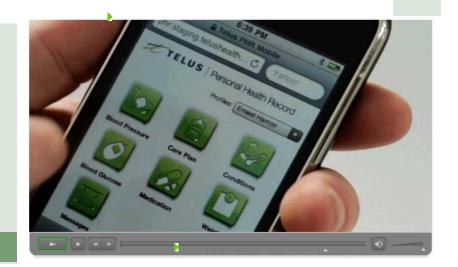
### About TELUS health space



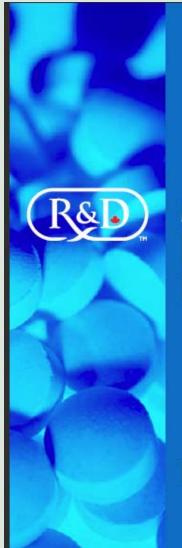


#### Canada's First Consumer ehealth Service

TELUS health space™, powered by Microsoft® HealthVault™, is Canada's first consumer ehealth service that puts Canadians in control of their health information. It is the kind of service that can serve as the foundation for building new models of care in Canada where citizens have access to their personal health information and a variety of online tools for health and wellbeing, chronic disease management, paediatric care and much more, helping Canadians take an active role in living healthier lifestyles.



# Medication Record Book from Rx&D (Order Free copies)



### Medication Record Book

Knowledge is the *best* medicine

# Knowledge is the *best* medicine Ask the *questions*, get the *answers*

- What is the name of the medicine?
- Why am I taking it and what does it do?
- How do I take it?

### Brought to you by:





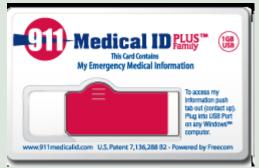


To order more copies, contact:

Canada's Research-Based Pharmaceutical Companies (Rx&D)

Email: knowledge@canadapharma.org Website: www.canadapharma.org (downloadable copy also available)

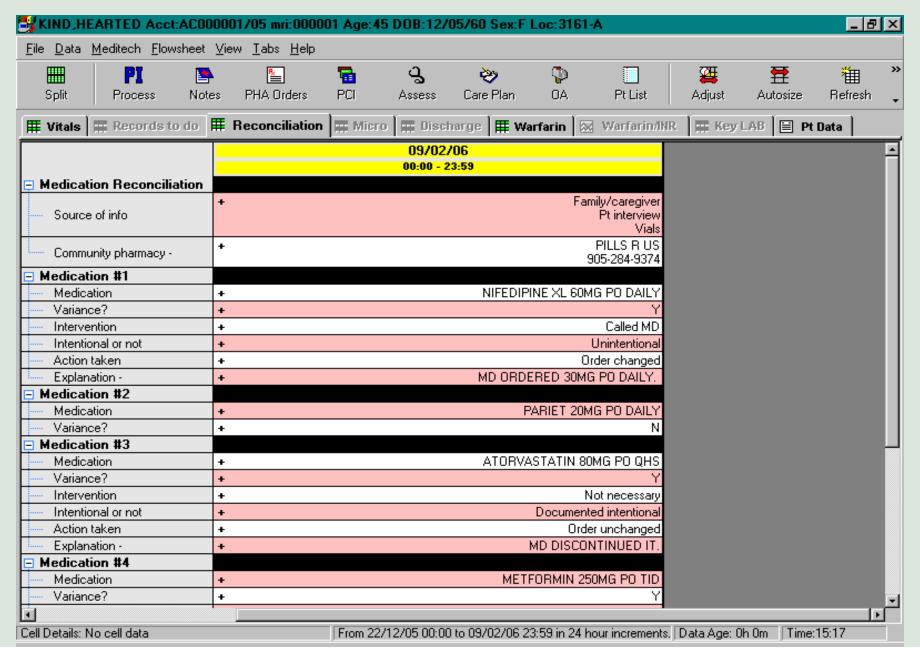
> 1-800-363-0203 fax: 613-236-6861



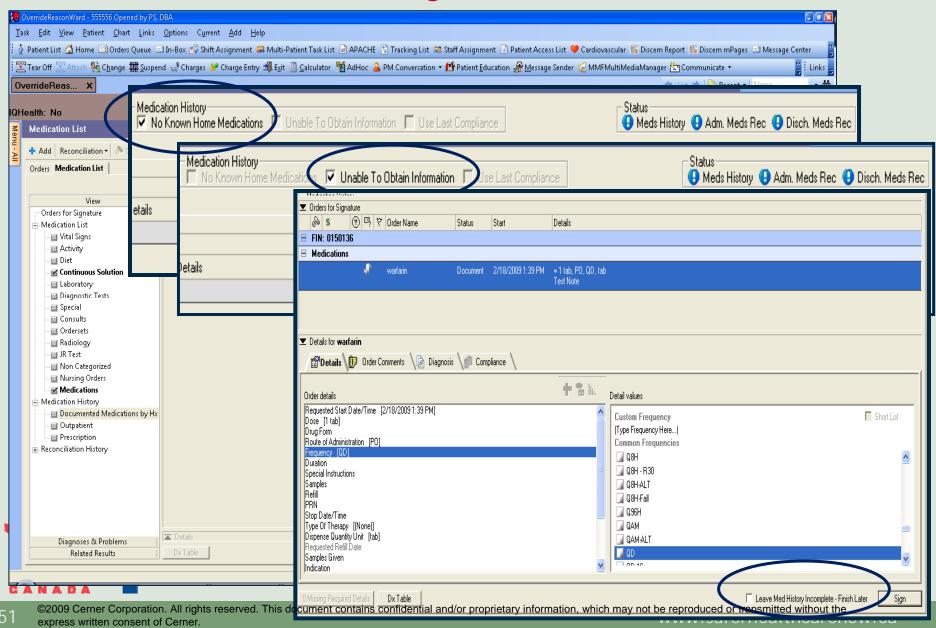


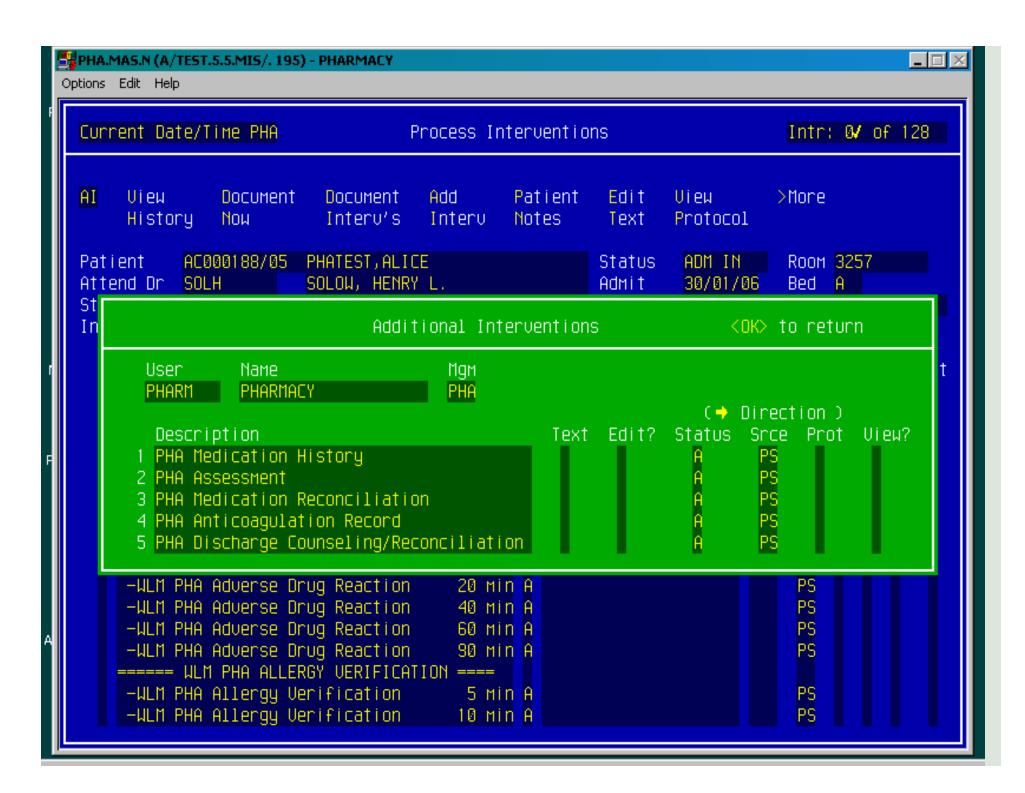


### Visual FlowSheet - Reconciliation



### **Medication History**





# Med Rec Communities of Practice (CoP)





New Community of Practice

- FAQ's based on years of experience
- Recorded calls
- Tutorials











### **Top 10 Practical Tips**

### How to Obtain an Efficient, Comprehensive and Accurate Best Possible Medication History (BPMH)

- Be proactive. Gather as much information as possible prior to seeing the patient. Include primary medication histories, provincial database information, and medications vials/lists.
- Prompt questions about non-prescription categories: over the counter drugs, vitamins, recreational drugs, herbal/traditional remedies.
- Prompt questions about unique dosage forms: eye drops, inhalers, patches, and sprays.
- Don't assume patients are taking medications according to prescription vials (ask about recent changes initiated by either the patient or the prescriber).
- **Use open-ended questions:** ("Tell me how you take this medication?").
- **Output**Use medical conditions as a trigger to prompt consideration of appropriate common medications.
- Consider patient adherence with prescribed regimens ("Has the medication been recently filled?").
- 8 Verify accuracy: validate with at least two sources of information.
- Obtain community pharmacy contact information: anticipate and inquire about multiple pharmacies.
- 10
  Use a BPMH trigger sheet (or a systematic process / interview guide). Include efficient order/optimal phrasing of questions, and prompts for commonly missed medications.

Adapted with permission from O. Fernandes PharmD, University Health Network, 2008

#### Medications: More Than Just Pills

#### Prescription Medicines

These include anything you can only obtain with a doctor's order such as heart pills, inhalers, sleeping pills.

#### Over-The-Counter Medicines

These include non-prescription items that can be purchased at a pharmacy without an order from the doctor such as aspirin, acetaminophen, laxatives, other bowel care products, herbs like garlic and Echinacea or vitamins and minerals like calcium, B12 or iron.

#### DON'T FORGET THESE TYPES OF MEDICATIONS







Eye/Ear Drops

Inhalers

Nasal Spray

Patches







Liquids

Injections

Ointments/Cream

Prompt the patient to include medicines they take every day and also ones taken sometimes such as for a cold, stomachache or headache.





Adapted from Vancouver Island Health Authority







Prevent Adverse Drug Events through Medication Reconciliation

#### Introduction

- Introduce self and profession.
- · I would like to take some time to review the medications you take at home.
- I have a list of medications from your chart/file and want to make sure it is accurate and up to date.
- Would it be possible to discuss your medications with you (or a family member) at this time?
  - Is this a convenient time for you? Do you have a family member who knows your medications that you think should join us? How can we contact them?

#### Medication Allergies

 Are you allergic to any medications? If yes, what happens when you take (allergy medication name)?

#### Information Gathering

- · Do you have your medication list or pill bottles (vials) with you?
- . Use show and tell technique when they have brought the medication vials with them
  - How do you take (medication name)?
  - How often or When do you take (medication name)?
- Collect information about dose, route and frequency for each drug. If the
  patient is taking a medication differently than prescribed, record what the
  patient is actually taking and note the discrepancy.
- Are there any <u>prescription medications</u> you (or your physician) have recently stopped or changed?
- What was the reason for this change?

### Community Pharmacy

- What is the name and location of the pharmacy you normally go to? (Anticipate more than one).
  - May we call your pharmacy to clarify your medications if needed?

#### Over the Counter (OTC) Medications

 Do you take any medications that you buy without a doctor's prescription? (Give examples, i.e., Aspirin). If yes, how do you take (OTC medication name)?

#### Vitamins/Minerals/Supplements

- Do you take any <u>vitamins</u> (e.g. multivitamin)? If yes, how do you take (vitamins name(s))?
- Do you take any <u>minerals</u> (e.g. calcium, iron)? If yes, how do you take (minerals name(s))?
- Do you use any <u>supplements</u> (e.g. glucosamine, St. John's Wort)? If yes, how do you take (supplements name(s))?

#### Eye/Ear/Nose Drops

- Do you use any eye drops? If yes, what are the names? How many drops do you use? How often? In which eye?
- Do you use ear drops? If yes, what are the names? How many drops do you use? How often? In which ear?
- Do you use nose drops/nose sprays? If yes, what are the names? How do you use them? How often?

#### Inhalers/Patches/Creams/Ointments/Injectables/Samples

- Do you use <u>inhalers</u>?, <u>medicated patches</u>?, <u>medicated creams or ointments</u>?, <u>injectable medications</u> (e.g. insulin)? For each, if yes, how do you take (medication name)? *Include name, strength, how often.*
- Did your doctor give you any medication <u>samples</u> to try in the last few months? If yes, what are the names?

#### Antibiotics

· Have you used any antibiotics in the past 3 months? If so, what are they?

### Closing

This concludes our interview. Thank you for your time. Do you have any questions?

If you remember anything after our discussion please contact me to update the information.

Note: Medical and Social History, if not specifically described in the chart/file, may need to be clarified with patient.

Adapted from University Health Network

My Medication Record							
Harrie:	Birthdate: / /	Height: Weight:					
Care Providers (name Sinumbers):							
Last Reviewed (date done diwith whore): / /							
Allergies & Responses:							

Ham e of Medications:	Date Started:	Research Taking:	Doze & Timer Taken:	Date Stopped:
1.				
2.				
2.				
4.				
5.				
6.				
7.				
6.				
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24				

### Medication record:

My Medication Record							
Banac Birthdate: Bright: Weight:							
Gara Providera (nome di acrabesa):							
Last Barines d'(date date à sath schare):							
Allergise 8 Despurence							

Israel Adioties	Bate Storted:	Ressorefer Taking:	Donadi Ti mer Taken :	Date Stapped:
Prescription medicines often have two names (generic fit brand). This informa- tion can be found on the medicine package or the informa- tion sheet that			Record the amount of medica-tion you take and each time of day the medicine is to be taken. It is best to mark in the donge in	
comes with it. Record both names, when- ever possible. Also record any over-the- counter medications, vitamins, herbs or matritional supplements.			miligrams (rag) or other dos- age units instead of the number of pills taken each time.	

### What's Next

- National Roundtable
- Webinar Series homecare fall 2010 acute care winter 2011
- Work with Accreditation Canada
- Work to let Ministries of Health know that medication reconciliation meets their needs to assist with reducing hospital readmissions





