Medication Reconciliation for Safer Health Care: Where Are We Now? PPC 2007

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SHN! - ISMP Canada Role

1. National Lead for Medication Reconciliation Initiative
2. Led the development of the Medication Reconciliation Getting Started Kit
3. Provide support for Canadian teams during implementation of medication reconciliation
4. Responsible for the creation and maintenance of the Community of Practice for Medication Reconciliation

ISMP CANADA

- Independent national, nonprofit Canadian organization
- Established for:
  - the collection and analysis of medication error reports and
  - the development of recommendations for the enhancement of patient safety.

ISMP Canada Vision

Collaborating nationally and internationally to advance safe medication use.

Objectives of Today's Talk:

- To provide an overview of lessons learned during 18 months of Canadian Campaign (re medication reconciliation)
- To review changes/modifications to the MR Getting Started kit
- To provide an update re CCHSA measures of compliance for medication reconciliation ROP

Lessons Learned

Challenging and Complex

It Is Working!

- Voluntary Collaborative Model
- Pan Canadian
- Identifying Mechanisms to Increase Safe Practices
- Access to Resources and People Sharing Successes

Communities of Practice

- Virtual gathering spots to facilitate group communications and enable SHN team members to collaborate with each other on a national level
- **8652** page views in January 2007

It Is Working

- Different Approaches – Being Shared
- 160 lines open on last MR call
- Successful approaches to BPMH (including families)
- Increasing efficiency

It Is Working

- Standardizing Processes
- Making Errors Visible
- Independent Redundancies
- Improving Access to Information
- Reducing Reliance on Memory

It Is Working

- Getting Data to Know that Changes are Resulting in Improvement!
- Unintentional Discrepancies (potential harm) and Undocumented Intentional Discrepancies are being REDUCED

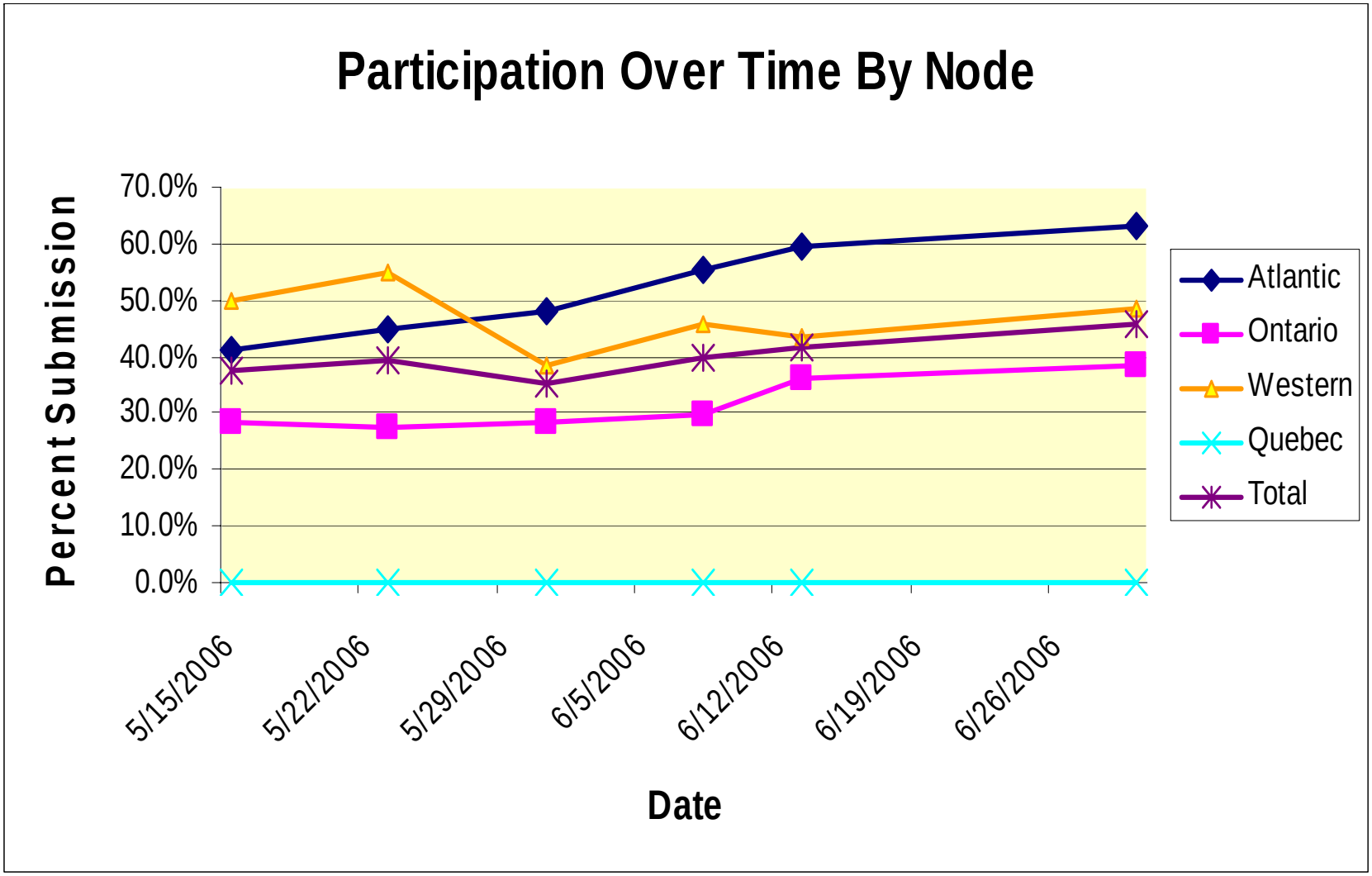
Distribution of Med Rec Teams

- **Western Node – 76 teams**
- **Ontario Node – 88 teams**
- **Quebec Node ~ 2 teams**
- **Atlantic Node - 24 teams**

SHN!
Medication Reconciliation Teams Data Reporting

December 2006 – 79.3% of Medication Reconciliation teams have reported data!

Teams Submitting Data



Most of the Work has Occurred at Admission

We can Celebrate

Many Canadian Medication Reconciliation Teams Successes

Riverview Hospital (RVH)

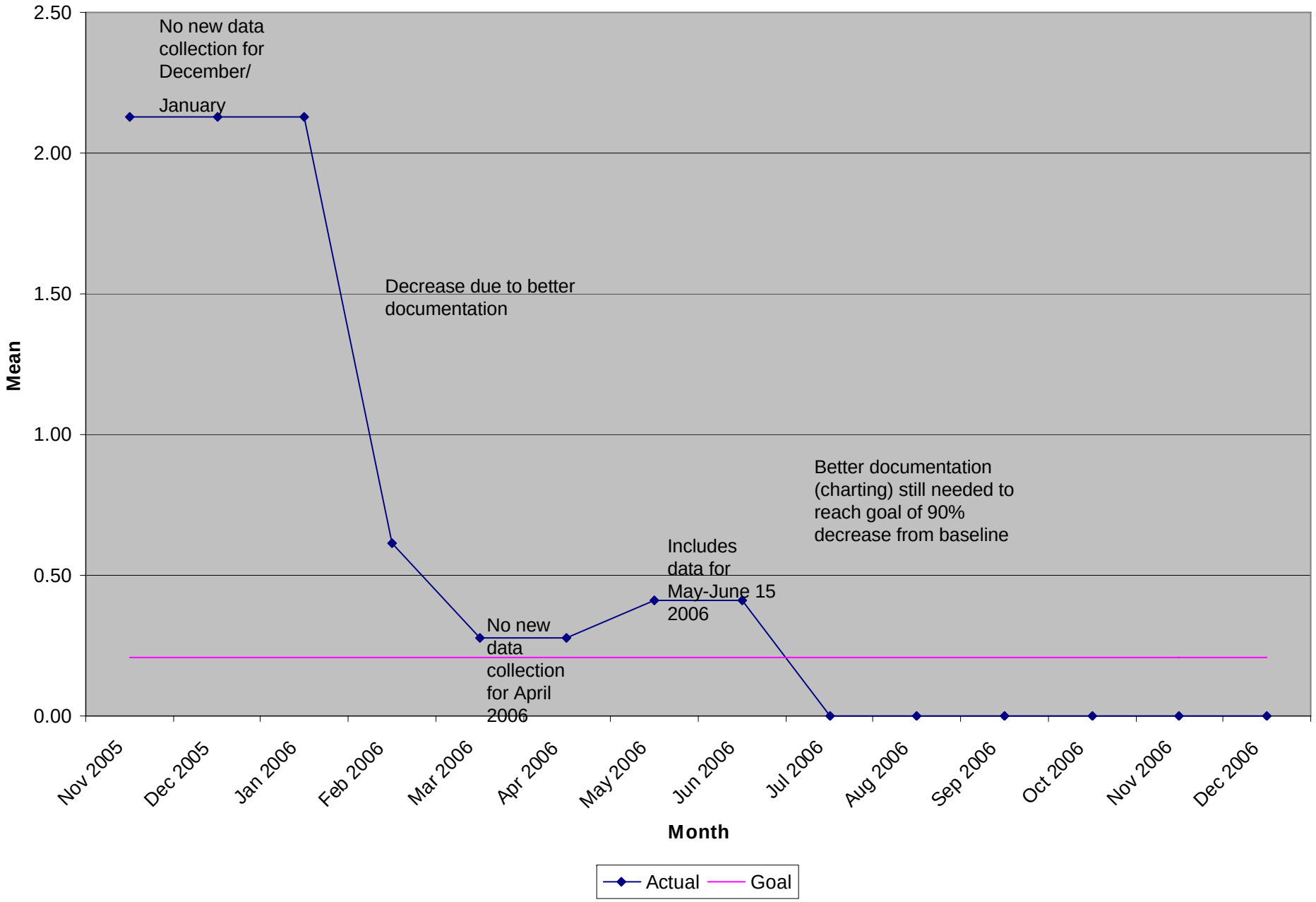
Part of British Columbia Mental Health Addiction Services

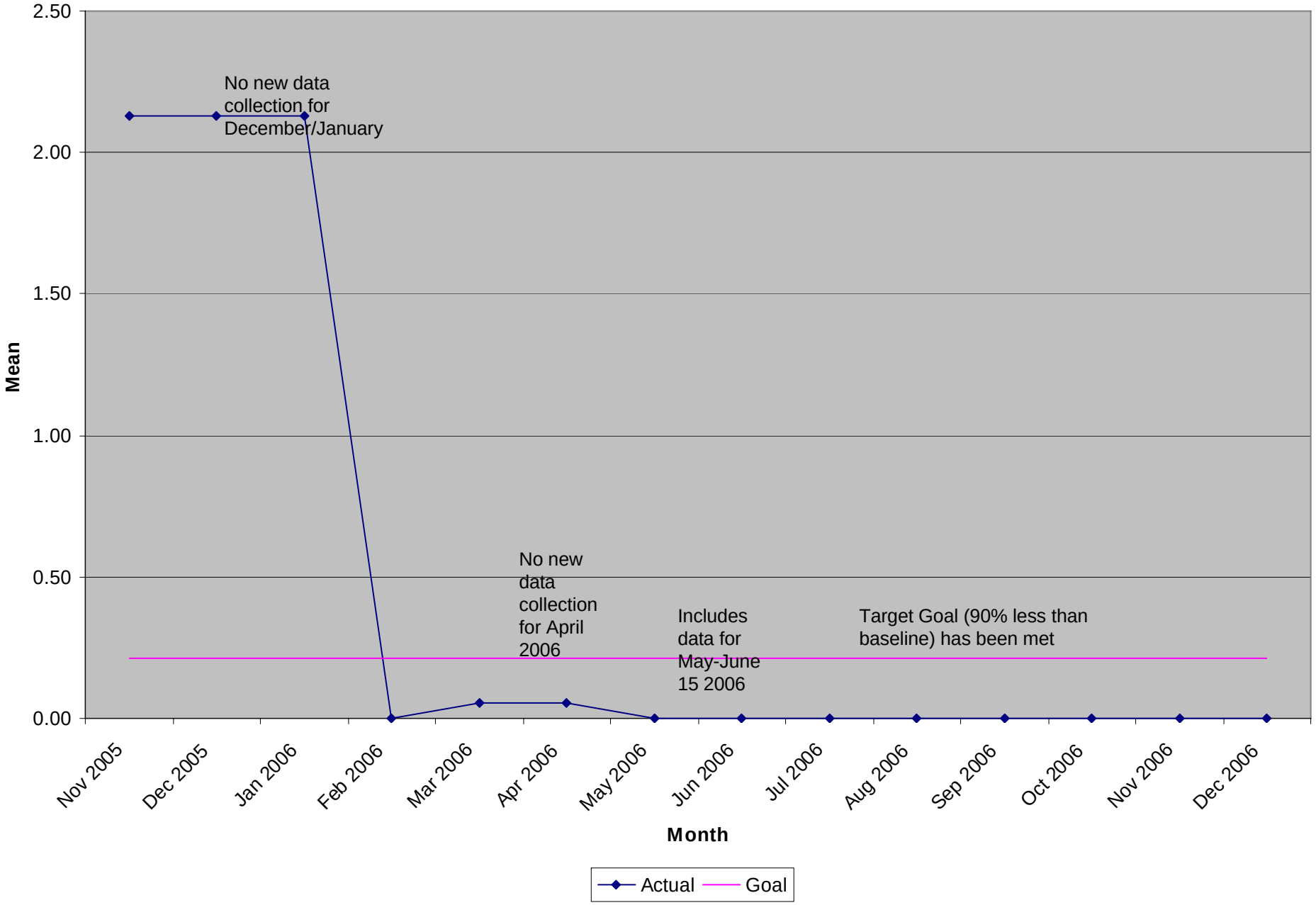
- **Adult Tertiary Psychiatric Program**
- **Geriatric Psychiatric Program**
- **Neuropsychiatry Program**

safer healthcare now!

Riverview Aims

- Reduce the mean number of undocumented intentional discrepancies at admission by 90% from baseline by October 2006
- Reduce the mean number of undocumented unintentional discrepancies at admission by 90% from baseline by October 2006
- Provide a process to identify high risk patients


1.0 Mean Number of Undocumented Intentional Discrepancies
2.50
2.00
1.50
1.00
0.50
0.00
Mean
No new data collection for December/ January
Decrease due to better documentation
No new data collection for April 2006
Includes data for May-June 15 2006
Better documentation (charting) still needed to reach goal of 90% decrease from baseline
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
Nov 2006
Dec 2006
Month
Actual
Goal


2.0 Mean Number of Unintentional Discrepancies
2.50
2.00
1.50
1.00
0.50
0.00
Mean
No new data collection for December/January
No new data collection for April 2006
Includes data for May-June 15 2006
Target Goal (90% less than baseline) has been met
Nov 2005
Dec 2005
Jan 2006
Feb 2006
Mar 2006
Apr 2006
May 2006
Jun 2006
Jul 2006
Aug 2006
Sep 2006
Oct 2006
Nov 2006
Dec 2006
Month
Actual
Goal

From ISMP Canada Survey

Renal transplant patient on transplant meds, not reordered upon admission. (Cellcept/Sirolimus)

"It was great that we caught these in time, all because we did the medication reconciliation... if they had actually gotten the dose that was ordered, there could have been some grave circumstances for sure!!) Seeing the errors that were averted encourages me and reminds me of the tremendous value of this initiative!!"

From ISMP Canada Survey

- **A quote from a patient advocate –**
- " My dear family friend, an 87 year old gentleman is recovering from congestive heart failure that may have been the result of mistakenly stopping his regular medications in hospital
- Medication Reconciliation is an excellent process to go through so please do not stop!"

From ISMP Canada Survey

RN quote: "The form is straight forward, you just fill in the blanks and it is done- all on one page. It is really quite nice!" " The process is working. You can't mix up patient orders if a patient is off serviced. The doctors do not have to rewrite anything therefore saves time. We are all more conscious of accuracy and details now."

From ISMP Canada Survey

- "Time to complete BPMH shortens with experience"
- "Surgeons like our combination BPMH and post op order form as it saves them time"
- "Reduces confusion"

From ISMP Canada Survey

- “We were amazed when we started just how many discrepancies there were”
- “We are all conscious of accuracy and details now”

Objectives:

- To provide an overview of lessons learned during 18 months of Canadian Campaign (re medication reconciliation)
- To review changes/modifications to the MR Getting Started kit
- To provide an update re CCHSA measures of compliance for medication reconciliation ROP

The Updated Getting Started Kit

Or is it the Keep Going Kit??

Medication Reconciliation Faculty

- Fruszina Pataky
- Peter Norton
- Judy Schoen
- Hilary Adams
- Nick Honcharik
- Patti Cornish
- Doris Doidge
- Olavo Fernandes
- Kim Streitenberger
- Ed Etchells
- Scott Edwards
- Neil MacKinnon
- Cynthia Majewski
- Marg Colquhoun

Medication Reconciliation Faculty Principles in Updating MR GSK

- KISS
- Clarify what was “causing trouble”
- Add transfer and discharge

High Level Review of Changes to Kit

- 'Prescription medication' changed to 'medication being taken on a regular basis'
- 'Hospital' changed to 'Healthcare Facility' – clarified that first version intended for hospitals

Review of Changes to Kit

- Success Index - voluntary
- Examples to explain discrepancies for admission, transfer and discharge
- Canadian Forms/Tools/Education packages
- New Canadian articles

MEDICATION RECONCILIATION
From Admission to Discharge

ADMISSION

AT ADMISSION:

The goal of admission medication reconciliation is to ensure there is a conscious decision on the part of the patient's prescriber to continue, discontinue or modify the medication regime that a patient has been taking at home.

Compare:

Best Possible Medication History (BPMH)

vs.

Admission Medication Orders (AMO)

to identify and resolve discrepancies

TRANSFER

AT TRANSFER:

The goal of transfer medication reconciliation is to consider not only what the patient was receiving on the transferring unit but also any medications they were taking at home that may be appropriate to continue, restart, discontinue or modify.

Compare:

Best Possible Medication History (BPMH)

and the

Transferring Unit Medication Administration Record (MAR)

vs.

Transfer Orders

to identify and resolve discrepancies

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. It should result in avoidance of therapeutic duplications, omissions, unnecessary medications and confusion.

Compare:

# of patients having BPMDL* (Best Possible Medication Discharge List)

vs.

# of patients discharged

(* BPMDL includes the Best Possible Medication History , the previous 24-hour Medication Administation Record , and any new medications to be started on discharge)

Transfers

Reconciliation at Transfer

Of the reported errors involving a medication reconciliation issue, 66% occurred during transitions from one level of care to another and two fatalities were associated with failures to reconcile medications during internal hospital transfers.

Santell JP. Reconciliation failures lead to mediation errors. Jt Comm J Qual Patient Saf 2006;32:225-9.

Reconciliation at Time of Internal Hospital Transfer

- Transfer is defined as change of service, change in level of care, post-operatively, transfer between units because of bed availability
- Decisions need to be made about the appropriateness of continuing existing hospital medications, as well as the need to resume or discontinue pre-hospital medications.

Crucial issues

Transfer from ICU to Ward

- Have pre-hospital medications (BPMH) been reconciled to transfer orders?
- Have ICU orders been reconciled to transfer orders?
- Have all discrepancies been resolved prior to transfer?
- Are allergies correctly listed on transfer orders?

Pronovost P *et al.* Medication reconciliation: a practical tool to reduce the risk of medication errors. J Crit Care 2003;18:201-5.

Transfer Reconciliation Procedure

- Process and personnel involved will vary in different institutions.
- It is important to:
  - Have a policy that designates who is responsible for completing the reconciliation and when it should occur.
  - Create a standardized paper or computerized form - depending on the available systems within the hospital.

Compare:

Best Possible Medication History (BPMH)

vs

Transferring Unit Medication Administration Record (MAR)

vs

Transfer Orders

To identify and resolve discrepancies

Discharge

Medication Reconciliation at Discharge

- Goal is to reconcile the medications the patient is taking prior to admission (BPMH) and those initiated in hospital with medications they should be taking post-discharge to ensure all changes are intentional and that discrepancies are resolved prior to discharge. It should result in avoidance of therapeutic duplications, omissions, unnecessary medications and confusion

New Language

BPMDL

- Best Possible Medication Discharge List

Change in Practice

- To consistently reconcile medications at discharge
- To deliver the information needed by families, physicians and patients

Best Possible Medication Discharge List

- **Accounts for the BPMH, the previous 24-hour MAR, and any new medications to be started on discharge**

- *For Example:*

  NSAID from the BPMH could have been stopped on admission due to a GI bleed, it may not be clinically appropriate to start on the BPMDL. In creating the BPMDL it is accounted for.

BPMDL

- Using the BPMH and last 24 hour MAR as references evaluate and account for:
  - **New medications started in hospital**
  - **Discontinued medications (from BPMH)**
  - **Adjusted medications (from BPMH)**
  - **Unchanged medications that are to be continued (from BPMH).....**

BPMDL – cont'd

- **Medications held in hospital**
- **Non-formulary/formulary adjustments made in hospital**
- **New medications started upon discharge**
- **Additional comments as appropriate – e.g. status of herbals or medications to be taken at the patient's discretion**

University Health Network

Toronto General Hospital Toronto Western Hospital Princess Margaret Hospital

Date: 15-November-2005
Patient Name: Fork, Knife
Patient Address: 123 Some Street, Toronto, ON, M5B 2R4
Patient Phone #: (416) 555-1234

Hospital Discharge Prescriptions

#	Medication	Dose	Route	Frequency
	Qty	Rpts	LU code	
1	Ferrous Gluconate		300mg	PO
	TID	90	0	
2	Omeprazole	40mg	PO	Daily
	30	1	295	
3	Ciprofloxacin	500mg	PO	BID
	14	0	336	

Qty= Quantity Rpts= Repeats LU code= Limited Use code

Physician Name: _____
CPSO Number: _____
Physician Phone #: _____
Physician Signature: _____

Please contact family physician for repeats.

Summary of Medication Allergies:
Penicillin - Hives

Summary of Medication Changes Since Admission:

New Medications:

- Ferrous Gluconate 300mg PO TID
- Omeprazole 40mg PO daily
- Ciprofloxacin 500mg PO BID

Discontinued Medications:

- Asprin 81mg PO daily
- Meloxicam 7.5mg PO daily

Adjusted Medications:

- Atorvastatin increased to 40mg PO QHS
- Calcium carbonate increased to 1000mg elemental calcium PO TID CC
- Metoprolol increased to 50mg PO BID

Unchanged Medications to be Continued:

- Calcitriol 0.25mcg PO daily
- Darbepoetin 60mcg SC qFriday
- Docusate sodium 100mg PO BID
- Ramipril 5mg PO daily
- Acetaminophen 325 - 650mg PO q4h PRN

Additional Comments:

An inpatient pharmacist helped to prepare this prescription.

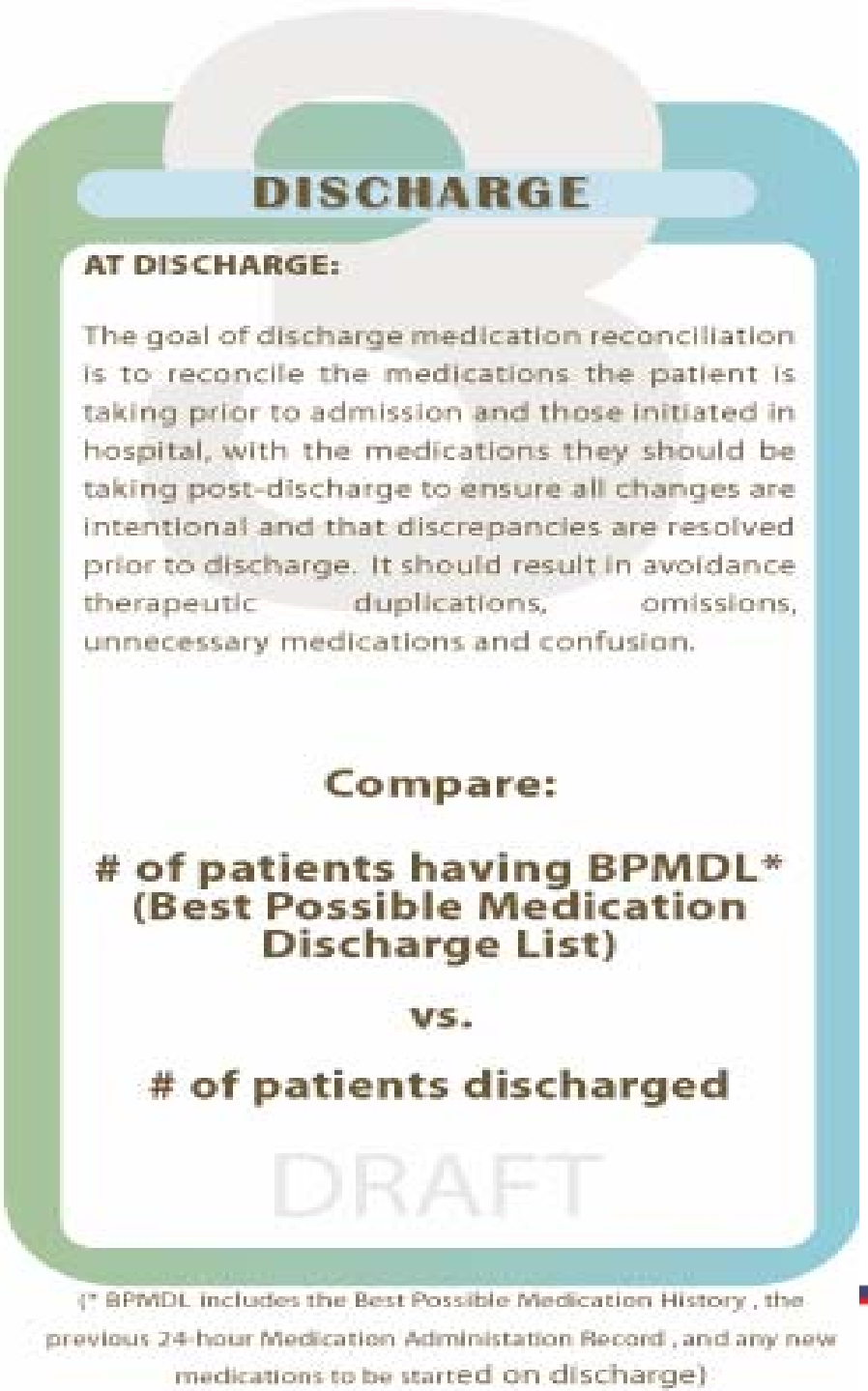
Further electronic and paper-based examples in GSK

New Measure at Discharge

- Is there a BPMDL?
  - BPMDL – prevention of ADE's
- What % of patients are getting the BPMDL (evidence of reconciliation at discharge)
  - Process measure of whether the practice change is taking place

New Measure at Discharge

$$\text{\% of patients reconciled at discharge} = \frac{\text{\# patients with completed BPMDL}}{\text{\# patients discharged}} \times 100$$



- Measure Medication Reconciliation at discharge
- Other potential measures will include the number of community MDs, phms, and home care folks that get the right information

Potential Addition

- For experienced teams who want to continue to measure changes in discrepancies.....

Measurement of Discrepancies

Best Possible Medication Discharge List (BPMDL)

vs

Discharge Prescriptions and discharge orders and/or discharge summary

To identify and resolve discrepancies

(same definitions, examples in kit)

The Optional Measure for Medication Reconciliation at Discharge

Reconciliation

- Starts with the BPMH
- Compared to appropriate MAR
- Changes evaluated and communicated at transfer points in care process

Note!

- Did not add measures outside acute care although long term care are using them
- Did not add section for community - awaiting Phase 2 of SHN Campaign

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PATIENT SAFETY AREA: COMMUNICATION

Goal: Improve the effectiveness and coordination of communication among care/service providers and with the recipients of care/service across the continuum.

ROP: Reconcile the patient's/client's medications upon admission to the organization, and with the involvement of the patient/client.

Test for compliance

(1) Are medications reconciled upon admission with the involvement of the patient/client?

(2) Is there evidence of reliable processes to ensure the collection and communication of accurate client medication information?

(3) Is medication reconciliation viewed as a shared responsibility?

(4) Are there strategies for the spread of medication reconciliation throughout the organization?

PATIENT SAFETY AREA: COMMUNICATION

Goal: Improve the effectiveness and coordination of communication among care/service providers and with the recipients of care/service across the continuum.

ROP: Reconcile medications with the patient/client at referral or transfer, and communicate the patient's/ client's medications to the next provider of service at referral or transfer to another setting, service, service provider, or level of care within or outside the organization.

Test for compliance

(1) Are medications reconciled at referral/transfer?

(2) Is there evidence of reliable processes to ensure communication of accurate client medication information?

(3) Is medication reconciliation viewed as a shared responsibility?

(4) Are there strategies for the spread of medication reconciliation throughout the organization?

CCHSA Revised ROP

- **Does the organization have an implementation plan for the spread of the medication reconciliation process upon admission, across the organization, before the next accreditation survey?**

CCHSA Revised ROP

Does the organization have an implementation plan for the spread of the medication reconciliation process at referral and transfer, across the organization, before the next accreditation survey?

What's Next

- New Measure at discharge
- Increasing communication
- Growing data
- Increased marketing

Marketing

- Information sheets to patients
- Local stories and data
- Presentations to medical staff at regularly scheduled meetings
- SHN Data

The Community of Practice

- Many contributors from across campaign
- Search for good ideas
- Shared tools, learning and presentations
- Ask questions and receive answers
- Engage in discussions with other teams
- Update your team on **Safer Healthcare Now!** activities, discussions, events

Markham Stouffville Hospital

Markham Stouffville Hospital

Filling Information Gaps Increases Medication Safety

Medication errors are a well-documented source of injury to hospital patients, and often, the gaps in patient information are to blame. At Markham Stouffville Hospital, staff undertook an initiative to reconcile patients' medications with their histories in an effort to tackle this problem.

Medication reconciliation is the collection of information regarding medication regimens taken at home and comparing those to medication orders received for patients at all interfaces of care, such as at admissions, during transfers and at the time of discharge.

When a team at the hospital conducted a study to discover the effect a medication reconciliation tool could have on its patients, it was surprised by the results. The study showed significant variances when reconciling these medication differences, namely more than 50% of patients had at least one medication variance upon being admitted to hospital.

What began as a paper document for the collection and documentation of medication histories eventually became part of the hospital's electronic patient chart. With this tool, pharmacists can easily verify medication histories on patients admitted to general medicine and intensive care via the emergency department, confirming the history obtained by the nurse or physician. These histories are then reconciled with orders written by the physician.

So far, the tool has facilitated the hospital's continuity of care and reduced the time spent on reconciling medications for patients being discharged. Medication reconciliation continues to be a valuable tool for patient safety at Markham Stouffville Hospital, allowing staff to successfully and precisely identify instances of therapeutic inadequacy, duplication or error.

- Many hospitals communicating with staff and families
- Increasing patient involvement across Canada

ismp CANADA

Amherst Daily News

Amherst Daily News (NS)

Close to home, Thursday, January 18, 2007, p. 3

Program takes aim at patient care

Sam McNeish

AMHERST - Staff at the **Cumberland Regional Health Care Centre** (CRHCC) are seeking to reduce adverse events in the hospital.

They have embarked on a program called Medication Reconciliation, a component of Safer Healthcare Now (SHN), a program to improve health-care delivery by focusing on patients and their safety while in the care of health providers.

SHN is a collaborative effort aimed at reducing the number of injuries and deaths related to adverse events, such as infections and medication incidents.

The primary focus of the SHN campaign is the implementation of six targeted interventions to improve patient care. The 404 teams involved in the campaign are committed to implementing one or more of the interventions in their health-care settings.

While these interventions focus on the acute care sector, it is anticipated that the campaign will expand to include participants from a variety of health-care areas.

"This program will be mandated in our next accreditation," Karen Fraser, pharmacist at the CRHCC said.

"We started on Nov. 20 and have had great results so far. We are seeing people preparing their lists of medications more often than we have in the past," she added.

Fraser said Dr. Brian Ferguson has been a major proponent of patients taking more responsibility for their medication and while she said things have improved over the past six weeks; there is still a long way to go.

No formal card is currently available.

- Local newspaper article “Program Takes Aim at Patient Care”

Amherst Daily News

Amherst Daily News (NS)
Close to home, Thursday, January 18, 2007, p. 3

Information the key to health care

Sam McNeish

UPPER NAPPAN - If someone were to give you better than a one in two chance at winning the lottery, would you buy a ticket?

That would be money pretty well spent.

So why gamble when it comes to getting proper treatment at emergency rooms or during visits to a doctor?

An alarming 50 per cent of people who visit the emergency room at the **Cumberland Regional Health Care Centre** have no idea what medications they take, the dosages and what they may even do.

"There has to be responsibility and accountability from patients for health care," Dr. Brian Ferguson said.

"Too many people project their health care onto other people. They just show up at emergency with a bag of pills and we have no idea what they are taking, how many they should take or when we ask them what they are taking, they say the little blue pill or the little red one," Ferguson added.

Ferguson, health care centre pharmacist Karen Fraser and several other hospital personnel are championing a program called Medication Reconciliation that urges everyone in Cumberland County taking medication to have a complete and up-to-date list of medications with them at all times.

Learning Series 4

- March 27, 28 Montreal
- 4 concurrent sessions on medication reconciliation – experienced teams presenting
- Campaign data about how well we are doing in all 6 interventions

This Is A System Wide Change – It Changes How We Do Business

Finally

We have momentum!

Medication Reconciliation

Across the Continuum of Care