Objectives

- Provide an overview of MedRec

- Identify levers to implementing a sustainable MedRec model

- Discuss potential barriers to implementation

Institute for Safe Medication Practices Canada

Independent national not-for-profit agency committed to the advancement of medication safety in all healthcare settings.

Our mandate includes analyzing medication incidents, making recommendations for the prevention of harmful medication incidents, and facilitating quality improvement initiatives.

Our goal is the creation of safe and reliable systems for managing medications.

www.ismp-canada.org

Toronto

Reporting and Prevention Systems

Medication Incident and Near Miss Reporting Programs

REPORT
a Medication Incident ⟩⟩

Practitioners

Healthcare Professional - (e.g., nurse, pharmacist, physician)

SafeMedicationUse.ca
for consumers

General Public

Preventing harm from medication incidents is a responsibility of health professionals. **Consumers like you** can also play a vital role.

CR
Community Pharmacy Incident Reporting

CPhIR - Community Pharmacy Incident Reporting Program

For participating community pharmacies.

A NALYZE-ERR ®

Analyze-Err®

For participating healthcare facilities.

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ISMP Canada Safety Bulletin

Aggregate Analysis of Medication Incidents in Home Care

Safety in home care is becoming a national focus. The shift from institutional to community care presents new challenges as governments, healthcare organizations, and families try to help patients maintain their independence as long as possible in the comfort of their own homes. As a result, a growing number of medically complex patients are receiving care in the community with the support of multiple caregivers coordinated by home care agencies. Many of these caregivers (including family members and personal support workers) are attempting to manage complex medication regimens with limited training or education, which may increase the risk of a medication error. Recent home care safety reviews have confirmed that medications are a major cause of preventable adverse events.[1-3] ISMP Canada undertook a multi-incident analysis to better understand the underlying challenges faced by individuals involved in supporting safe medication use in the home care setting. This bulletin shares findings from the analysis, highlighting the major themes and selected contributing factors, to identify opportunities for system-based improvements.

Methodology and Overview of Findings

Reports of medication incidents that occurred at home were extracted from voluntary reports submitted to ISMP Canada's medication incident reporting database from August 1, 2000, to February 18, 2014. Of the 246 incident reports reviewed, only those with descriptive text suggesting the provision of home care (use of terms such as "service provider", "case management", "home-visiting"

SafeMedicationUse.ca Newsletter

Sharing Opioid Medicines Can Be Deadly

What are opioids?

pioids are medicines used to treat pain.

he following drugs are some **examples***
f opioids:

- codeine (Tylenol #1, #2, #3)
- fentanyl (Duragesic)
- hydromorphone (Dilaudid, Hydromorph Contin)
- morphine (Statex, MS Contin, M-Eslon)
- oxycodone (Percocet, OxyContin, OxyNEO)
- methadone (Metadol)

This list includes only the most commonly prescribed
pioids. If you are unsure whether one of your medicines
an opioid, ask your doctor, nurse, or pharmacist.

ts after careful consideration of their age, weight,
ns. For this reason, an opioid prescription that is
. Also, individuals who use opioids regularly can
y may require higher doses to control their pain.
not tolerate even low doses. Warning signs that
pioid medicine include a slow or unusual heart
ernails, inability to talk or be awakened from
mouth or throat.

Improving quality in patient safety

Ontario
CRITICAL Incident Learning

Issue 9
June 2014

Distributed to:

- Chief executive officers
- Chiefs of staff
- Board chairs
- Quality/patient safety leads
- Directors of pharmacy
- Directors of nursing

Suggested action Items:

- Refer bulletin to pharmacy and therapeutics committee and nursing leadership committees with a recommendation to examine the use of insulin pens for inpatients
- Circulate bulletin to physicians and front-line staff
- Use bulletin, in addition to other tools such as the insulin pen e-Learning module, as an educational resource in your hospital's safety huddles or rounds

Sharing Insulin Pens is a High-Risk Practice

Insulin pens are injection devices that are designed to help patients administer their own insulin with greater ease, convenience, and accuracy relative to the traditional insulin vial, needle, and syringe.[1] These advantages have led to a rise in the popularity of insulin pens in facilities, which has been paralleled by an increase in concerns about the high-risk practice of sharing insulin pens between different patients.[2] Since insulin cartridges and reservoirs can be contaminated with blood and other biologic material after their first use, sharing insulin pens carries the potential for transmission of blood-borne pathogens (e.g., HIV, hepatitis B, hepatitis C).[2,3]

ISMP Canada, with support from the Ontario Ministry of Health and Long-Term Care, led a knowledge translation[4] project to develop evidence-based interventions and resources promoting the safe use of these devices. A key resource developed is the "Safe Use of Insulin Pens" e-Learning module. The module is intended to help healthcare providers recognize the advantages and disadvantages of insulin pens, understand the risks associated with the use of these devices, and develop best-practice administration techniques while learning to use insulin pens safely.[5]

Call to Action for Hospitals

Make system-based changes to ensure insulin pens are used safely:
- Prohibit the sharing of insulin pens between patients.
- Dispense insulin pens with cartridges already inserted.
- Label insulin pens with pharmacy-generated, patient-specific labels, for single-patient use only.
- Place patient-specific labels on the barrel of the insulin pen, not on the cap.
- Use insulin cartridges only with an insulin pen. Do not use a needle and syringe to withdraw insulin from a cartridge.
- Use educational tools such as the ISMP Canada e-Learning module, along with hands-on training, to educate healthcare providers on the potential risks associated with using these devices, as well as on best-practice techniques.

Sustain high-quality practice:
- Ensure that staff members have access to relevant information about best-practice techniques and potential risks of insulin pens at all points of care.
- Reinforce safe insulin practices by providing education on an ongoing basis.

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Patient Story

- Mr. J 78 y.o man

- Citalopram 40 mg po daily and lorazepam 0.5mg po q4-6h prn for anxiety

- Went to see ortho for ongoing leg cramps

- Ortho prescribed quinine

- Pt took Rx to regular pharmacy

- Not covered by provincial formulary

Patient Story

- Called prescriber and switched med to chlordiazepoxide 25mg po qhs

- Pt took med for 2 days

- Feeling ++ somnolent during the day

- Called daughter who is pharmacist

- Daughter / pharmacist said "are you kidding me?"

Scope of the Issue

- **16%** of physicians say hospitals send them information needed for follow-up care within 48 hours of a patient being discharged

- **26%** say they always receive a comprehensive report from specialists who have seen their patients, and 11% of them say these reports are timely

- **43%** of physicians say they can easily generate a list of any patient's medications

How do Canadian primary care physicians rate the health system?
Health Council of Canada, 2013

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Toronto

Queen's Family Health Team

A baseline audit of patients on 4 or more medications:

- Ahead of scheduled appointments they asked patients to bring in their 'shoebox' of home medications and meet with a medical student who compares it with the computer chart list.

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Medication Reconciliation

- MedRec is a **formal** process in which health care professionals partner with patients to ensure **accurate and complete** medication information is **communicated** consistently at **transitions of care**

- It requires a **systematic and comprehensive review of all the medications** a patient is taking (known as a **BPMH**) to ensure that medications being added, changed or discontinued are carefully evaluated

In other words:

….making sure the right information is communicated about a patient's medications each time the patient moves throughout the healthcare system

Medication Management

Patient-centred care to optimize safe, effective and appropriate drug therapy. Care is provided through collaboration with patients and their health care teams[1]

Clinical Medication Review

Addresses issues relating to the patient's use of medication in the context of their clinical condition in order to improve health outcomes[2]

Medication Reconciliation

A formal process in which healthcare providers work together with patients to ensure accurate and comprehensive medication information is communicated consistently across transitions of care[3]

Best Possible Medication History

A complete and accurate list of all the medications a patient is taking created using at least 2 sources of information including a client and/or family interview[4]

1. Developed collaboratively by the Canadian Pharmacists Association, Canadian Society of Hospital Pharmacists, Institute for Safe Medication Practices Canada, and University of Toronto Faculty of Pharmacy, 2012
2. www.health.gov.bc.ca/pharmacare
3. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011
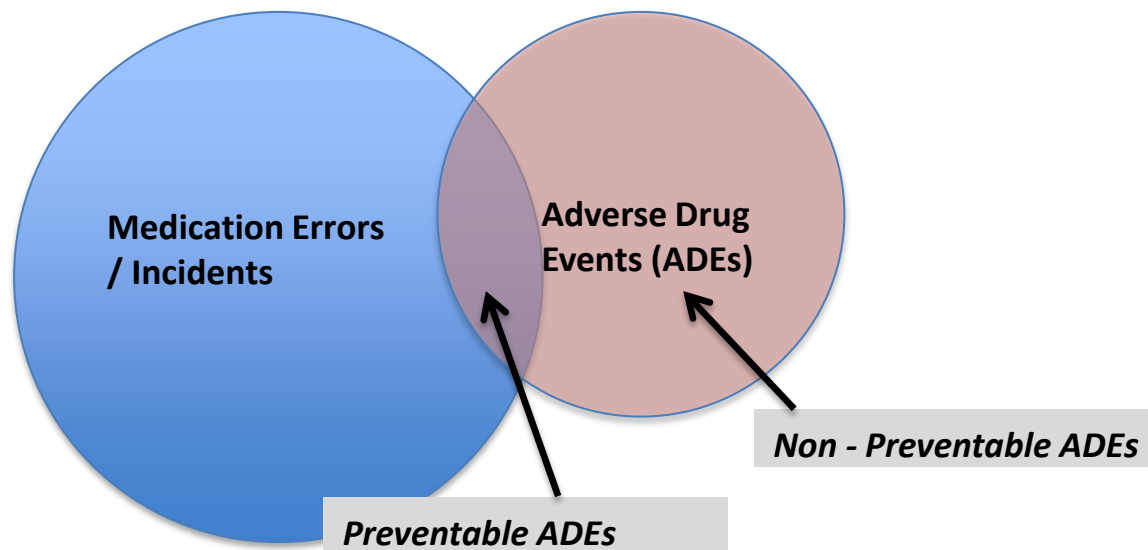4. ISMP Canada. Medication Reconciliation in Acute Care: Getting Started Kit. 2011

Adapted from
Fraser Health, Providence Health Care,
Provincial Health Services Authority,
Vancouver Coastal Health

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Specialist(s) A, B, C

Primary Care Provider

Hospital Visit

Person/Family Self-Care

Emergency Department Visit

Community Pharmacy

Home Care

Adapted from Medication Reconciliation in Home Care Getting Started Kit, January 2011

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Goal of MedRec

Prevent adverse drug events

Medication Errors / Incidents

Adverse Drug Events (ADEs)

Non - Preventable ADEs

Preventable ADEs

Bates DW, Boyle DL, Vander Vliet MB, Schneider J, Leape L .Relationship between medication errors and adverse drug events. J Gen Intern Med. 1995 Apr;10(4):199-205.

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Medication Communication Failures Impact EVERYONE!

PATIENT & FAMILY

- loss of life
- prolonged disability
- temporary harm
- complicated recovery
- loss of income
- confusion about treatment plan

HEALTHCARE SYSTEM

- prolonged recovery time
- increased cost and staff time due to rework
- avoidable readmissions and Emergency department visits
- reduced access to health services

SOCIETY

- loss of productivity
- workplace absenteeism
- increased cost
- loss of public confidence in the healthcare system

Medication Safety: We all have a role to play.

Safe patient care depends on accurate information. Patients benefit when clinicians work with patients, families, and their colleagues to collect and share current and comprehensive medication information. Medication reconciliation is a formal process to do this at care transitions, such as when patients enter the hospital, are transferred or go home. We all have a role to play.

Accreditation Canada, Canada Health Infoway, the Canadian Medical Association, the Canadian Nurses Association, the Canadian Pharmacists Association, the Canadian Society of Hospital Pharmacists, Patients for Patient Safety Canada, the Royal College of Physicians and Surgeons of Canada, The College of Family Physicians of Canada, Canadian Patient Safety Institute and the Institute for Safe Medication Practices Canada **actively support strategies to improve medication safety and call on all healthcare professionals to contribute to effective communication about medications at all transitions of care to improve the quality and safety of our Canadian healthcare system.**

Medication reconciliation is not just for doctors working in institutions. Family doctors have an ongoing relationship with their patients and are often the custodian of the medication list. In this way, medication reconciliation may be viewed as an ongoing process (e.g. whenever the patient visits, when the pharmacy calls, when incoming records from other specialists are received) involving family doctors and other key stakeholders within the patient's circle of care.

[*The Canadian Medical Protective Association*](#)
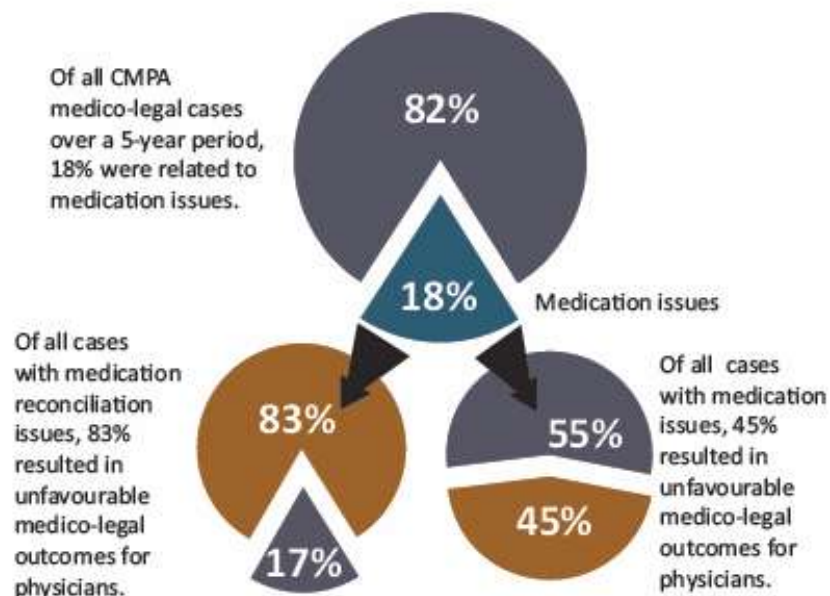
ACTION

FOR SAFER MEDICAL CARE

Medication reconciliation

Medication reconciliation is the process of working with patients, family, and other healthcare professionals to ensure accurate and comprehensive medication information, including over-the-counter or non-prescription medication, is communicated across transitions of care. It is an emerging area of focus in patient safety and a recurring theme in CMPA cases.

➜ CONSIDER THIS...

A patient with a history of thromboembolic events, myocardial infarction and on long-term anticoagulant therapy with warfarin, is admitted for pacemaker and defibrillator implantation. The warfarin is stopped prior to the procedure and heparin is started. Three days later, an MIBI test is performed. As the test is negative for ischemia, the cardiologist discharges the patient but does not resume the warfarin. The patient subsequently has an ischemic stroke with permanent right hemiplegia and aphasia. A legal action follows and experts are critical that the cardiologist did not consult the patient's medical records and did not ascertain that the patient still required anticoagulant therapy. A settlement was paid by the CMPA on behalf of the cardiologist.

Of all CMPA medico-legal cases over a 5-year period, 18% were related to medication issues.

82%

18% Medication issues

Of all cases with medication reconciliation issues, 83% resulted in unfavourable medico-legal outcomes for physicians.

83%

17%

Of all cases with medication issues, 45% resulted in unfavourable medico-legal outcomes for physicians.

55%

45%

58% of the patients involved in medication reconciliation related cases, died or had serious clinical outcomes.

Statistics are based on a recent 5-year study of CMPA medico-legal cases.

Medication Reconciliation in Primary Care

Step 1

Obtain the Best Possible Medication History (BPMH) and **identify** discrepancies

- Interview the patient using a systematic process to determine actual medication use by the patient

- Compare information obtained from interview with other sources of information (e.g., patient's chart, community pharmacy list, discharge summary, medication vials, drug information systems, etc.)

- Identify discrepancies amongst them

- Document BPMH and discrepancies that need clarification

Step 3

Document the reconciled list and **communicate** any medication changes

- Update the BPMH with the resolved discrepancies; this becomes the reconciled list

- Provide this list to the patient and verify the patient's understanding of their medication regimen; communicate to the patient the importance of keeping an up-to-date medication list

- Provide this list to the patient's community pharmacist and others involved in the patient's circle of care

Step 2

Resolve discrepancies

- Determine appropriate resolution through discussion with primary care provider and patient

  (*if primary care provider is obtaining the BPMH themselves this may be completed during the interview process)

Step 4

Continually update the reconciled medication list

- At subsequent patient visits update the reconciled list with any recent changes made to the patient's medication regimen

ISMP CANADA
Institute for Safe Medication Practices Canada
L'Institut pour l'utilisation sécuritaire des médicaments du Canada

Ontario
Health Quality Ontario
Qualité des services de santé Ontario

Step 1 – Obtain a BPMH

Best Possible Medication History

A complete and accurate list of how the patient takes *all* of his or her medications

NOT JUST how they were prescribed

NOT JUST prescribed medications

We open the vial with the patient and say "tell me how you use/take these".

Sharon Sobol, Pharmacist, Cape Breton

When my wife reminds me

I don't

Nightly

After I have a headache

Wednesdays

How the patient takes them

I take them all at once

Two or three times a day

When I feel "funny"

I stopped taking them when my blood felt too thin

What drugs?

Step 1- Obtain a BPMH

- Gather sources of information (e.g., community pharmacy list, discharge summary, medication vials, drug information system, etc.)

- Interview the patient using a systematic process to determine actual medication use by the patient.

Step 2 Identify Discrepancies

- Compare the BPMH to information contained in the patient's primary care chart.

- Document the BPMH and differences (discrepancies) that need clarification.

Discrepancies

- Exclusion of a medication that the patient is currently taking (omission)

- Inclusion of a medication that the patient is no longer taking (commission)

- Incorrect / missing pieces of medication information (e.g., dose, route or frequency)

Discrepancies can lead to ADEs

Step 3 – Resolve Discrepancies

- Determine the cause

  - Did the patient not understand how to take their medications properly?

  - Was it a clerical error that led to the discrepancy?

  - Did the patient intentionally choose to take their medications differently than prescribed, due to a side effect, on the advice of a friend or the internet?

  - Did the prescriber who initiated the medication not fully appreciate what else the patient was taking?

Step 3 – Resolve Discrepancies

- Correct the discrepancies as appropriate through discussion with the primary care provider and the patient.

- Update the BPMH with the resolved discrepancies; this becomes the *reconciled list.* Document the reconciled list in the primary care chart.

Step 4 - Continuity of Medication Information

- Communicate any resulting medication changes to the patient and verify the patient's understanding of their medication regimen

- Provide the reconciled list to the patient's community pharmacist and others involved in the patient's circle of care

Step 4 - Continuity of Medication Information

- Ensure patient understands changes made to their medication regimen

- Encourage patients to keep an up-to-date medication list

knowledgeisthebestmedicine.org

http://youtu.be/f2KCWMnXSt8

Toronto

Barriers

- **Time**

- **Time**

- **Time**

- Integrated electronic health records in every province

- Health literacy of patient

- Difficulty sharing information amongst providers

Potential Change Ideas

- Inter-professional approach

- Focus efforts towards high-risk patients, e.g.,

  - Recently discharged from hospital

  - Patients on ++ medications

- Encourage patients to bring in medications at each visit

- Involve a pharmacist in the process

Toronto

Resources

- Primary MedRec Resource Guide **Coming Soon!**

- ismp-canada.org/medrec

- safemedicationuse.ca

- hqontario.ca/qualitycompass

- knowledgeisthebestmedicine.org

If it was in the future….

- Mr. J 78 y.o man

- Citalopram 40 mg po daily and lorazepam 0.5mg po q4-6h prn for anxiety

- Went to see ortho for ongoing leg cramps

- *Ortho reviewed complete medication list provided on referral form and asked Mr. J if he was taking any other medications*

- *Mr. J provided the ortho with an up to date medication list he carries with him*

In the future

- Ortho prescribed quinine

- Pt took Rx to regular pharmacy

- *Pharmacist upon realizing quinine is not covered by provincial formulary investigated an appropriate alternative*

- *Pharmacist reviewed patient's medication profile and asked patient if there have been any recent changes to his medications*

In the future….

- *Pharmacist called ortho and suggested a safe alternative*
- *Ortho asked / reviewed if medication was compatible with the rest of Mr. J's medications*
- *Pharmacist confirmed that medication does not interact with any thing else Mr. J is taking*

In the future….

- *Pharmacist filled new medication*

- *Pharmacist provided education on medication and how best to take it with other medications Mr. J is on*

- *Pharmacist reminded Mr. J to up date his medication list*

- *Mr. J called his daughter / pharmacist to confirm medication was ok*

Utopia
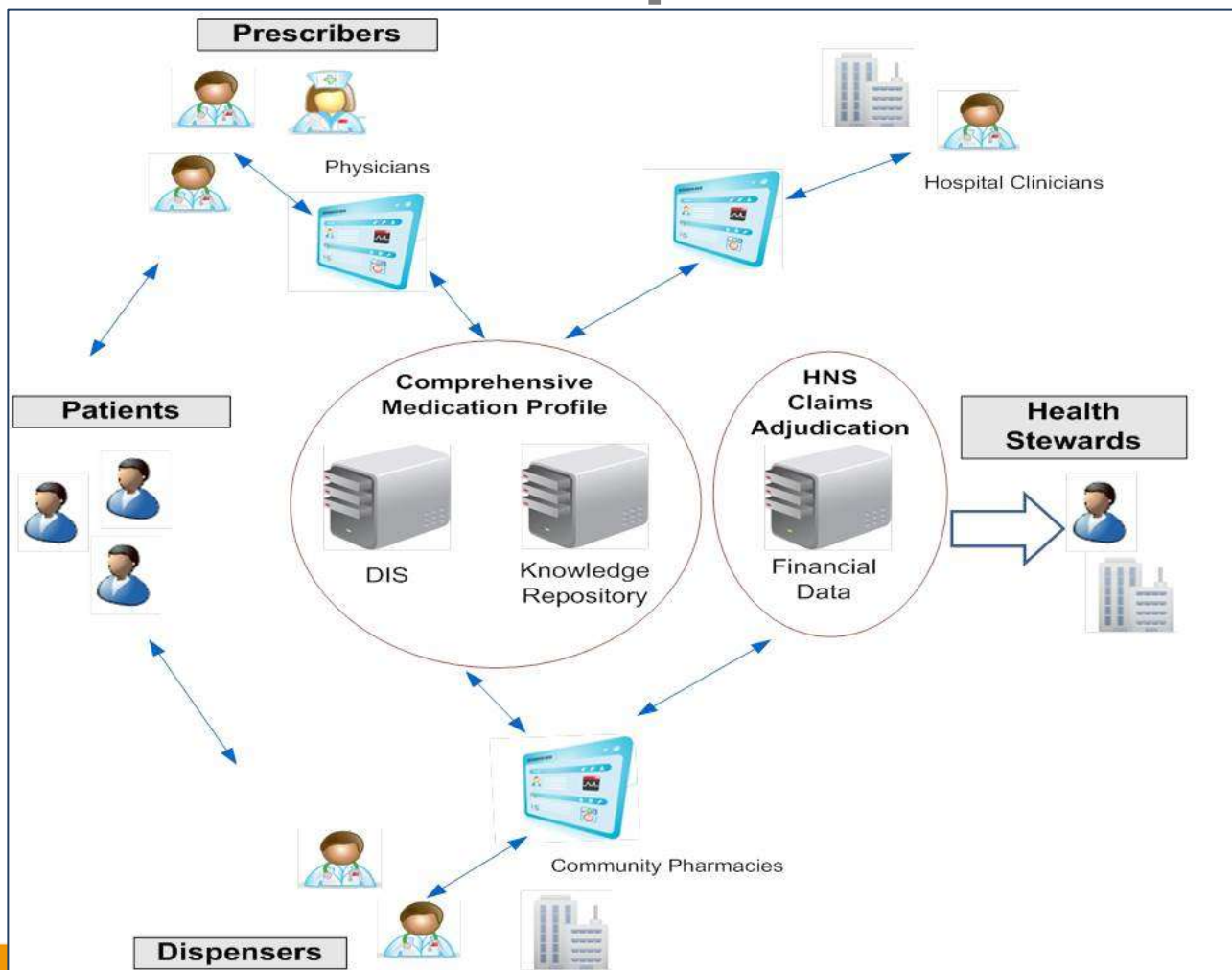
Questions

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