MEDICATION WITHOUT HARM

LEARNING OBJECTIVES

- Participants should be able:
  - To know the definition of polypharmacy.
  - To understand the risk factors of polypharmacy.
  - To understand the importance of Medication Reconciliation process and its implementation strategies.
  - To recognize the Physician, pharmacist and Nurses' role in this process.

Medication without harm

- Both patients and health care Providers, has a role to play in ensuring medication safety.
- Initiating the third WHO Global Patient Safety Challenge: Medication Without Harm, WHO has developed a campaign to increase public awareness of the safety issues related to medication use.
- WHO aim to develop strategies for safer medication practices to reduce risk of polypharmacy and transition of care e.g Medication Reconciliation

POLYPHARMACY

Definition

- Polypharmacy is the routine use of four or more over-the-counter, prescription and/or traditional medications at the same time by a patient.
- Common in older adults
- Polypharmacy increases the risk of
  - Side effects
  - Drug interactions
  - Reduce adherence

Risk Factors for Polypharmacy

- **Patient related**
  - >62 years
  - Cognitive impairment
  - Developmental disability
  - Frailty
  - Lack of a primary care physician
  - Mental health conditions
  - Multiple chronic conditions
  - Residing in a long-term care facility
  - Seeing multiple subspecialists
- **Health care system**
  - Poor medical record keeping
  - Poor transitions of care
  - Prescribing to meet disease-specific quality metrics
  - Use of automated refill systems

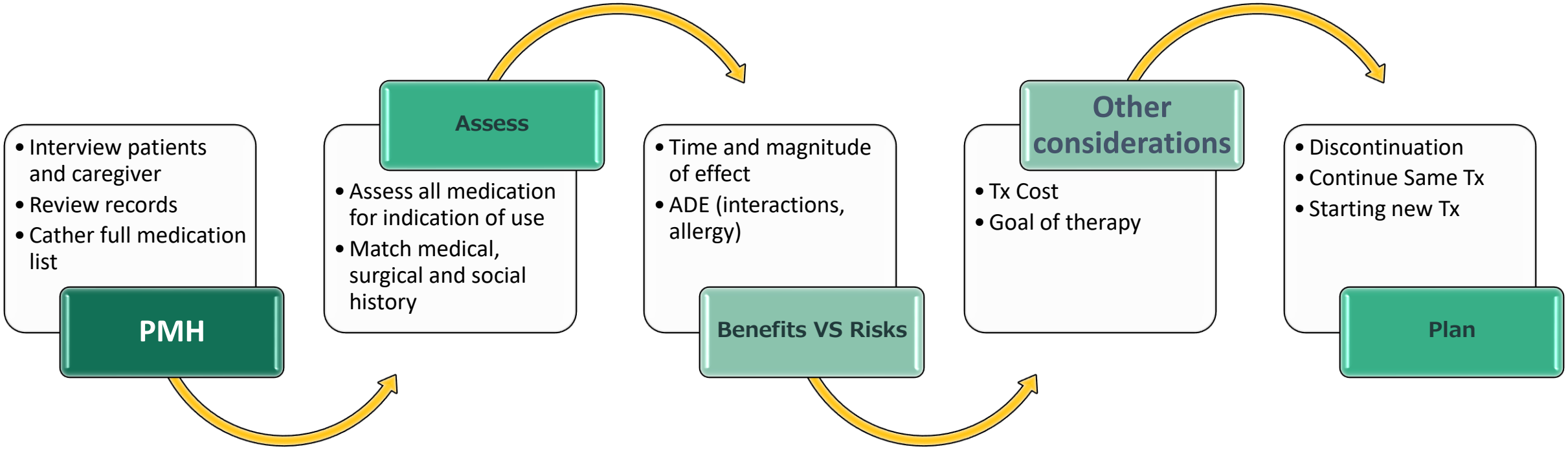
Before starting any new medication ask

- Are there underlying causes that should be addressed first?
- Is the new medication/treatment necessary?
- Are there nonpharmacologic options?
- Are there preventive measures that can be tried first?
- Are there benefits? Are there proven outcomes? When will the benefit be seen?
- What are the risks?
- What are the patient's/caregiver's goals of therapy?
- What are my goals of therapy?
- What is the patient's estimated life expectancy when considering age and comorbidities?
- Is the patient adherent to currently prescribed medications?

When starting any new medications

- Consider it a trial rather than a permanent addition.
- Follow up with the patient in a timely manner
- Assess for effectiveness and safety at follow-up visits.

- When renewing refills, consider the benefits vs. the risks of continuation (long term and short term).


• Interview patients and caregiver
• Review records
• Cather full medication list
PMH
Assess
• Assess all medication for indication of use
• Match medical, surgical and social history
• Time and magnitude of effect
• ADE (interactions, allergy)
Benefits VS Risks
Other considerations
• Tx Cost
• Goal of therapy
• Discontinuation
• Continue Same Tx
• Starting new Tx
Plan

MEDICATION RECONCILIATION AND TRANSITION OF CARE:

THE 3 Ws
WHAT? WHY? WHEN?

What is Transition of Care?

- Transitions of care occur when a patient moves between facilities, sectors and staff members;
- Increase the possibility of communication errors, which can lead to serious medication errors

What is Medication Reconciliation?

❖ As defined by the Institute for Healthcare Improvement (IHI):

- Medication reconciliation is a process of identifying the most accurate list of all medications a patient is taking—including name, dosage, frequency, and route— and using this list to provide correct medications for patients anywhere within the health care system.

Why is Medication Reconciliation Important?

- Most frequently occurring type of medical error:
  - Medication errors
- Most frequently cited category of root causes for serious adverse events:
  - Ineffective communication
- Most vulnerable parts of a process:
  - Links between the steps (the “hand-overs”)

The initiatives

- The high 5 project
  - http://www.who.int/patientsafety/implementation/solutions/high5s/h5s-guide.pdf?ua=1
- High 5 Guiding principles
- *Medication Without Harm*: WHO's Third Global Patient Safety Challenge http://www.who.int/patientsafety/medication-_safety/en/

- The Saudi Center for patient Safety
  - https://twitter.com/spsc_sa; https://spsc.gov.sa/
- The Joint Commission
- American Society of Health-System Pharmacists
- ISMP CANADA

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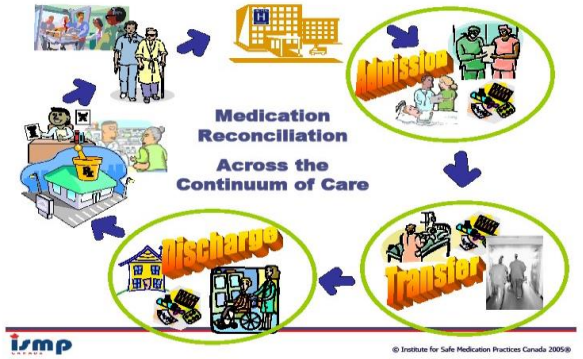

How do We Justify the Need for a Medication Process that Addresses Transitions of Care?

- Rate of medication errors in a 6-month period decreased by 70% after implementation of a medication reconciliation process at all phases of hospitalization
  - Rozich J.D. & Resar R. JCOM. 2001; 8: 27-34
- One study found 94% of patients had orders changed after ICU stay. By reconciling all pre-hospital, ICU, and discharge medication orders, nearly all medication errors in discharge prescribing were avoided
  - Provonost P, et al. Journal of Critical Care.2003; 18:201-205.

CBAHI
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Saudi Central Board for Accreditation of Healthcare Institutions

- MM.20

Safe prescribing, ordering, and transcribing of medication orders are guided by a clear policy and procedure.

- MM.20.3

Medication reconciliation is conducted at the time of admission and discharge.

Requirements at Admission

- MMU.4

Prescribing, ordering and transcribing are guided by policies and procedures.

- MEs for MMU.4

5. Patient records contain a list of current medications taken prior to admission and this information is made available to the pharmacy and the patient's care providers.

6. Initial medication orders are compared to the list of medications taken prior to admission, according to the organization's established process.

Requirements at Discharge

- ACC.4.3

The complete discharge summary is prepared for all patients

- ME's

4. The discharge summary contains significant medications, including discharge medications

- ACC.4.3.1

Patient education and follow up instructions are given in a form and language the patient can understand

- ME's

1. Follow up instructions are provided in writing and in a form and language the patient can understand

Required Steps in the Reconciliation Process

- Develop accurate list of patient's medications
- Reconcile listed medications with new orders
- **Omission**
- **Duplication**
- **Additions**
- **Adjustments**
- Update list as orders change during episode of care
- Communicate updated list to next provider(s) and patient, as required

Identifying and Resolving Discrepancies

- Discrepancies found between admission medication orders and the BPMH can be divided into three main categories:

- Intentional (The prescriber has made an intentional choice to add, change or discontinue a medication based on the patient's plan of care and their choice is clearly documented.)
- Undocumented intentional (The prescriber has made an intentional choice to add, change or discontinue a medication but this choice is not clearly documented which need clarification.)
- Unintentional

An unintentional discrepancy

- The prescriber unintentionally changed, added or omitted a medication the patient was taking prior to admission.
- Unintentional discrepancies fall into 2 main categories:

  - **Omission**: Patient was not ordered a pre-admission medication. There is no clinical explanation or documentation for the omission.
  - **Commission**: Incorrect addition of a medication not part of the patient's pre-admission medication and there is no clinical explanation or documentation for adding the medication to the patient's therapy.

Who’s Job is it?

- Everyone is responsible for ensuring that medications are used safely.
- Each profession has its own unique skills and knowledge.
- Good collaboration between various members of the healthcare team brings together those skills to improve the quality and safety of patient care.

Taking a “Best Possible Medication History”

The Goal

- To obtain complete information on the patient's preadmission medication regimen including Names, Formulation, Dosage, Route, Frequency, indications, allergies and time of last dose (adherence).

- Try to use at least two sources of information when possible and explore discrepancies between them (e.g Patient, caregivers, Pill bottles or Medication lists)

- ASAP within the first 24 hours of hospitalization

Taking a “Best Possible Medication History”

- If starting point is a medication list, review and verify each medication with the patient (Assume all lists are inaccurate)
- If starting from scratch, consider the following prompts

  - **What medications do you take at home?**
  - **What medications do you take every day, regardless of how you feel?**
  - **Which medications do you take only sometimes?**
  - **Fill in gaps (dose, frequency, formulation, route)**

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Top 10 Practical Tips

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

1. **Be proactive.** Gather as much information as possible prior to seeing the patient. Include primary medication histories, provincial database information, and medications vials/ lists.
2. **Prompt questions about non-prescription categories:** over the counter drugs, vitamins, recreational drugs, herbal/traditional remedies.
3. **Prompt questions about unique dosage forms:** eye drops, inhalers, patches, and sprays.
4. **Don't assume patients are taking medications according to prescription vials** (ask about recent changes initiated by either the patient or the prescriber).
5. **Use open-ended questions:** ("Tell me how you take this medication?").
6. **Use medical conditions as a trigger** to prompt consideration of appropriate common medications.
7. **Consider patient adherence with prescribed regimens** ("Has the medication been recently filled?").
8. **Verify accuracy:** validate with at least two sources of information.
9. **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.

Multidisciplinary approach

- Admission
  - Admitting physician responsible for documenting and comparing home medication list and deciding what medicines to continue
  - Nurse and pharmacist review list
- Transfer
  - Physicians on transferring and accepting teams review medications, dosages, and when administered
- Discharge
  - Physician & Pharmacist compare outpatient list and inpatient list
  - Review medicine instructions with patient

Shared vision

- Patients and healthcare professionals will rely on pharmacists to provide leadership in designing and managing optimal patient-centered medication reconciliation systems.
- Pharmacists have distinct knowledge, skills, and position in the medication use process to facilitate and implement effective medication reconciliation tools for patient and interdisciplinary use.
- Pharmacists will lead change in achieving safer and more effective medication use by educating patients and healthcare professionals regarding the benefits and limitations of the medication reconciliation process.

Pharmacists

- Are frequently integral to the medication reconciliation process
- Yet, may not be the best solution: pharmacists often have other essential tasks to carry out
- Often best to target "high-risk" patients—those most at risk of an adverse drug event during transitions of care

Research suggests the following are high risks:

- Older age (55–80 years)
- Polypharmacy (4–13 medications)
- More than 3 comorbid conditions

Other Information To Be Aware Of

- Medication side effects.
- Special instructions for taking each medication (i.e.,
- special foods or times or activities which might effect the benefits of the medication).
- Which medication might be discontinued when a new medication is added.
- Medications with names that sound just alike or look alike (LASA).

IMPLEMENTING MEDICATION RECONCILIATION STRATEGIES

Strategies for Reconciliation

- Refer to the arrival list when writing medication orders for admission, transfer, and discharge.
- Compare the arrival list with every medication ordered at admission or discharge and look for discrepancies
- Address ALL discrepancies with the physician

Reconciliation in Three Steps

- ❖ Verification
- Collection of medication history
- ❖ Clarification
- Ensuring that the medications and doses are appropriate
- ❖ Documentation
- Changes to orders or reason for differences

Approaches to Medication Reconciliation

- Performing robust, thorough, and accurate medication reconciliation during transitions in care involves:

❖ Interprofessional collaboration among pharmacists, nurses, and physicians

❖ Integrating medication reconciliation into discharge summaries

❖ Combining reconciliation with medication counseling with patients

JCI Summary of Safe Practice

- Recommendations for Reconciling Medications at Admission

- **Collect complete and accurate pre-admission medication lists**
  - Collect a complete list of current medications (including dose and frequency) for each patient on admission.
  - Validate the pre-admission medication list with the patient (whenever possible).
  - Assign primary responsibility for collecting the preadmission list to someone with sufficient expertise, within a context of shared accountability (the ordering prescriber, nurse, and pharmacist must work together to achieve accuracy).
-

JCI Summary of Safe Practice

- Write accurate admission orders
  - Use the pre-admission medication list when writing orders.
  - Place the reconciling form in a consistent, highly visible location within the patient chart (easily accessible by clinicians writing orders)
- Reconcile all variances
  - Assign responsibility for identifying and reconciling variances between the pre-admission medication list and new orders to someone with sufficient expertise.
  - Reconcile patient medications within specified time frames

JCI Summary of Safe Practice

- Provide continuing support and maintenance
  - Adopt a standardized form to use for collecting the pre-admission medication list and reconciling the variances (includes both electronic and paper-based forms).
  - Develop clear policies and procedures for each step in the reconciling process.
  - Provide access to drug information and pharmacist advice at each step in the reconciling process.

Implementing the WHO High5s for Medication Reconciliation

- The first step is to determine what needs to be done.

- Who should be involved and what are their roles and responsibilities?
- What is the time line for implementation?
- What are the major milestones and deliverables along the road to full implementation?
- Should a pilot test be done?
- How is a full, successful, and sustainable implementation achieved?

Key steps to start

- Secure Senior Leadership Commitment
- Form a Team
- Develop a Work Plan
- Process map current and planned processes
- Define the Problem
- Set Aims (Goals and Objectives)
- Collect Baseline Data
- Submit Baseline Data
- Start small and build expertise in reconciling medications
- Evaluate Improvements Being Made – Collect and Monitor Data
- Spread throughout the organization

TRAINING & COMPETENCY PROGRAM FOR STUDENTS AND HEALTHCARE PROFESSIONALS

Making It Happen

- Design a process for developing the list, making it available, using it, updating it and providing to patient and next provider/physician
- Develop the tools
- Develop the policies and procedures
- Train the staff
- Monitor the process- look for opportunities for improving the process

Competency Development

- Knowledge/Skills/Abilities:
  - Understanding of medication reconciliation procedures
  - Ability to conduct patient medication history interview
  - Ability to use all available resources to gather patient medication history information
  - Ability to identify medication discrepancies
  - Ability to document in the record
  - Ability to troubleshoot discrepancies identified
- Prerequisites(i.e. necessary) background knowledge/skills/abilities required of staff prior participation:
  - Knowledge and understanding of patient interview technique
  - Foundational understanding of required components for a complete and accurate medication history.

Competency Development

- Training and education that will be needed (didactic and experiential):
- Didactic:
  - Independent review of guidance documents regarding Medication Reconciliation procedures. Preceptor available for questions.
- Experiential:
  - Observe pharmacist complete one medication reconciliation
  - Perform medication reconciliation assessment with preceptor

How Competency will be Assessed /Measured

- Observation:
  - ❖ Demonstrate proper method of obtaining a complete medication list utilizing all appropriate resources
  - ❖ Demonstrate knowledge of how to conduct a medication history interview
  - ❖ Demonstrate knowledge of how to identify medication discrepancies
  - ❖ Demonstrate knowledge of who to identify to communicate and troubleshoot identified discrepancies
- Method of assessment: Direct observation pharmacist completing medication reconciliation
- Performance threshold: Successfully complete ≥ 90% of medication reconciliation competency checklist.

Competency Example

- Successful completion of medication reconciliation training series, consisting of:
  - How to contact an outside pharmacy to collect information
  - How to conduct a patient/family medication history interview
  - Where to look for medication related information in the medical record and electronic systems
  - How to document the Home Medication list in the medical record
- Successful completion of prospective preceptor review of at least one admission medication reconciliation, including the following components:
  - Patient/family interview
  - Outside pharmacy inquiry
  - Documentation of home medication list in medical record

CHALLENGES AND LESSONS LEARNED ?

Challenges in Medication Reconciliation

- Often, no clear owner of this process
- Time constraints
- Difficult to identify accurate sources of information
- Poor health literacy
- Patients don’t know or can’t tell us what they are taking.
- Patient not want to admit what they have been taking
- Labels on bottles are often outdated or incorrect
- Patient may take medication differently than prescribed
- Medication lists are often inaccurate
- Patients often forget several types of medication (Medications that are not taken daily, refrigerator and Medications that are not taken by mouth)

Sources of Confusion for Patients Regarding Medications

- Multiple names for a single drug
- Failing to instruct patient about medications taken at home that weren't written for discharge
- Switches to “formulary” versions when admitted
- Changing the dosage strength or frequency without sufficient understanding by the patient as to why
- Stress of transitioning through the healthcare system
- Language barriers; cultural beliefs
- Relationship with the healthcare clinician who is obtaining the history
- Interviewer’s skill level

Health Information Technology

- Health information technology (IT) has been lauded as a solution for challenges in medication reconciliation
- A consensus statement issued by the Society of Hospital Medicine (SHM) highlighted the power of health IT
- The consensus statement by SHM recommended:

  - An integrated and transferable personal health record
  - This record must be compatible across all settings

A Note of Caution

- "Hospital-based medication reconciliation at care transitions frequently identifies unintended discrepancies, but many have no clinical significance. . . Bundling medication reconciliation with other interventions aimed at improving care coordination at hospital discharge holds more promise."

Bundling medication reconciliation with other interventions

- Medication reconciliation can be "bundled" with other interventions:
  - Individualized counseling of patients
  - Coordination of follow-up appointments
  - Post-discharge telephone calls
  - Involvement of a care coordinator or nurse discharge advocate

Best Practices in Medication Reconciliation "Patient Education"

- Patients should participate in the medication reconciliation process
- Encourage patients to keep an up-to-date list of medications and understand why they take each
- During the discharge process, medical staff should ensure that patients are educated about any changes in medication regimen

- “Medication reconciliation helps patients recognize they are responsible for their own health care and what happens to them”

Lessons Learned

Medication reconciliation issue is not going away
The admission process is complex. The discharge process is twice as complex
No one likes to be asked the same question twice . . including patients
No list is perfect
There is no quick fix
Communicate, communicate, communicate
Be flexible-LISTEN to the concerns of staff
Multidisciplinary support is essential
To be successful, absolutely must demonstrate the value! This is not just filling out another piece of paper…

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THANK YOU