Medication Reconciliation upon Discharge Improvement Project

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A performance Improvement Project
Medication Reconciliation
A Patient Safety Components

- Device-associated Module
- Procedure-associated Module
- Medication-associated Module
- MDRO & CDI Module
- Vaccination Module

Errors
Omissions
Interactions
Duplications
Align Yourselves With Those on the Same Mission & Vision
Medication Reconciliation – A Patient Safety Components

• Medication use module is a complex & challenging
• IHI, ISMP, JCI, AHRQ believed that medication reconciliation is the right thing to do to benefit patients and help in delivering safer patient care.
• Communicating medication list effectively during transition of care:
  – Admission
  – Transfer
  – Discharge
• It is a critical step to assure patient safety
Definitions

**Medication Reconciliation**: A process for obtaining & documenting a **complete** and **accurate** list of a patient’s **current medicines** upon admission & comparing this list to the prescriber’s **admission**, **transfer** and/or **discharge** orders to identify and resolve discrepancies.

**Admission Reconciliation Process**: requires a straightforward comparison of patient's pre-admission medications with admission orders;

**Discharge Reconciliation**: A complex process requires 3 sources of information:

1. Patient’s list of home medications
2. Medications deactivated during admission
3. Medications ordered during admission & newly added medications on discharge
Opportunities for Improvement

- Medication Reconciliation is a Joint Commission measurable element (MMU4).
- Unresolved medication discrepancies during hospitalization can lead to medication errors such as duplications, omissions, dosing errors, or drug interactions.
- More than 40% of avoidable medication errors are believed to result from inadequate reconciliation during admission, transfer, and discharge of patients.
- Of these errors, about 20% are believed to result in harm to patient.
Background

- A trend of low compliance was noted in the % of medications reconciled upon discharge for admitted and emergency (ED) patients “refer to the below graph”.

- However, Medication reconciliation on admission showed consistent results meeting the set target.

- Medication reconciliation was identified as one of high risk priorities requiring improvement and selected ‘medication reconciliation upon discharge’ as one of the strategic KPIs
Objectives

- To eliminate preventable medication errors and adverse drug reactions resulting from therapeutic duplications, omissions, and interactions.
- To optimize care coordination which is one of the strategic objectives of Tawam Hospital.
- To improve discharge medication reconciliation compliance in ED and IP.
- To meet and exceed SEHA target requiring that 85% of discharged patients from ED and IP areas have their medication reconciled.
Find an Opportunity for Improvement
Organize a team
Clarify the current process
Understand the current problem
Select a desired outcome
Diverse Team = Wise Decisions = High Impact

**Facilitator**
- Hosn Saifeddine, Quality Manager

**Project Leaders**
- Dr. Shaikha Al Ameri, A CMO
- Dr. Walid Kaplan, A CQO
- Dr. Robert Corder, Chair ED
- Brian Ziegler, Pharmacy Director

**Team Members**
- Dr. Salam Bin Rafeea, Specialist ED
- Tariq Izzeldin, Pharmacy Supervisor (Medication Safety Officer)
- Zakaria Harb, Pharmacy Supervisor (PhamNet Application Specialist)
- Khuloud Bin Rafeea, Deputy Pharmacy Director
- Bader El Sa’ Di, Senior Pharmacist (PhamNet Application Specialist)
- Basma Beiram, Clinical Pharmacist
- Mahmoud Hassan, ADON ED
- Francis Beadle, Nursing Informatics
PDCA Cycle
Objectives of the project:

• To improve discharge medication reconciliation compliance in ED and IP.
• To meet and exceed SEHA target requiring that 85% of discharged patients from ED and IP areas have their medication reconciled.
• To eliminate medication errors related to omissions, duplications, and interactions.
• Diverse multidisciplinary team collaborated together
• Benchmarking form international hospitals, GCC and UAE.
• Brainstorming created a process map to identify potential areas for improvement/how to achieve it.
• Fishbone identified the root causes of the problem.
• Work flow diagram, assigning responsibilities & timeframes.
Low compliance with Discharge medication reconciliation

**Patient**
- Lack of awareness of patient
- Lack of patient education and compliance
- Reliance on provider
- Health Literacy
- Issue not raised to the leadership before to gain their support

**System**
- Complicated process
- Lack of consistency in documentation
- No reminder prompts to do med rec.
- Process review trigger
- Utilization of reports generated by system
- System issue raised by physicians

**Personnel**
- Lack of training & Awareness
- Unavailability of a super user
- Lack of interest by some physicians.
- Increased number of new physician
- Physician resistant to the system change
- Motivation

**Leadership**
- Issue not raised to the leadership before to gain their support

**Communication**
- No active meetings to discuss process and compliance
- Complexity of communication
- Data to monitor compliance was at long interval (every quarter)

**Culture**
- Issues of accountability
- Lack of team work

Identifying Root Causes
<table>
<thead>
<tr>
<th><strong>DO</strong></th>
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<tbody>
<tr>
<td><strong>HIS System Improvement:</strong></td>
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<tr>
<td>• Cleanup of all outpatient medication profiles by removing all duplicate medications.</td>
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<tr>
<td>• Implementation of ‘Acknowledge’ functionality for ED physicians.</td>
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<td><strong>Education &amp; Training:</strong></td>
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<tr>
<td>• Development and posting of educational materials on Tawam Intranet.</td>
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<td>• Real time training on the units for all physicians including residents.</td>
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<td>• Educational sessions to all physicians during departmental meetings on the importance of medication reconciliation.</td>
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<tr>
<td><strong>Patient &amp; Family Education:</strong></td>
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<tr>
<td>• Patient and family awareness regarding medication reconciliation.</td>
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### CHECK (Post-Improvement Results)

#### Medication Reconciliation upon Discharge - Inpatients & ED

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Q1, 2015</td>
<td>2%</td>
</tr>
<tr>
<td>Q2, 2015</td>
<td>33%</td>
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<tr>
<td>Q3, 2015</td>
<td>89%</td>
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<tr>
<td>Q4, 2015</td>
<td>92%</td>
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<tr>
<td>Q1, 2016</td>
<td>88%</td>
</tr>
<tr>
<td>Q2, 2016</td>
<td>95%</td>
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<tr>
<td></td>
<td>94%</td>
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- **ED**
- **Inpatient**
- **Target**
- **Linear (ED)**
<table>
<thead>
<tr>
<th>Country</th>
<th>Benchmark</th>
<th>Compliance percentage</th>
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<tbody>
<tr>
<td>USA</td>
<td>Joint Commission: National Patient Safety Goal compliance for the Hospital Accreditation Program</td>
<td>99.7% in 2005</td>
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<tr>
<td>Canada</td>
<td>Winchester District Memorial Hospital</td>
<td>57% in 2013</td>
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<tr>
<td>KSA</td>
<td>Imam Abdulrahman Al Faisal Hospital – Dammam</td>
<td>69% in 2012</td>
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Benchmarking – SEHA BEs

Medication Reconciliation on Discharge

Tawam SKMC Mafraq Al Ain Rahba Gharbia SEHA

Q1, 15 Q2, 15 Q3, 15 Q4, 15 Q1, 16 Q2, 16
ACT

- Expand the project to outpatient services
- Target Medication Reconciliation associated with inpatient admission and transfer between different levels of care
- Continue measuring and monitoring compliance with Medication Reconciliation
- Review trends and evaluate strategies
- Continue to discuss results with all staff
- Continue with staff education
If you want to go Fast, go Alone
If you want to go Far, go with the Team
спасибо  谢谢 ありがとう  GRACIAS  MERCI
THANK YOU  DANKE  धन्यवाद  شكرًا  OBRIGADO