



Implementing the Brown Bag Medicine Review Tool to Improve Cardiovascular Outcomes



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Introduction

- Every year, nearly 125,000 Americans die due to poor medication adherence
- Medication nonadherence attributes to almost \$300 billion a year in additional provider and emergency department visits and hospitalizations.
- Medication adherence can reduce stroke risk by 31%–45% and myocardial infarction risk by 8%–23%.
- Emerging clinical and cost-benefits of adherence in primary care
- The Brown Bag Medicine Review (BBMR) is a tool that helps clinicians identify what medicines patients are taking and how they are taking them.

Purpose

The purpose of this project was to implement a quality improvement project utilizing the evidence-based BBMR tool to improve medication adherence and medication communication between the provider, patient, and clinical staff.

Methods

Adult patients were instructed to bring all their prescription and over-the-counter (OTC) medicines to each provider visit. A reviewer utilized a Spanish-speaking interpreter to conduct medicine reviews in the clinic using a questionnaire while transcribing the patient's verbal response.

Results

Fifty-percent (n = 13) were found to have problems with their medicine regimen; however, only 15% (n = 2) were identified with a possible risk to patient safety, and regimens were modified. The most identified adherence problems were taking a new OTC medicine 31% (n = 4) or stopped taking a prescription medicine 23% (n = 3) without telling a clinician in the clinic. Overall, 19% (n = 5) of medicine regimens were modified.

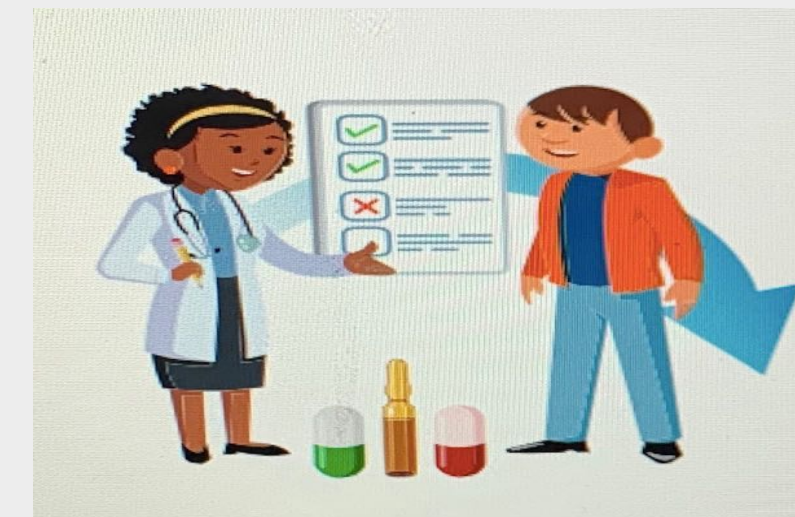
Discussion

- Improve the effectiveness of medication review processes and communication between the patient and clinic staff regarding medicine regimens
- Categorize and identify specific barriers to medication nonadherence
- Real-time modification of medicine regimens and assess medicine understanding.
- Technology use such as mobile phone messaging may support BBMR reminders and medication adherence.
- Pharmacists may be beneficial during implementation and when medicine problems are found.

In primary care, an evidence-based medicine review tool can improve patient and provider communication regarding medicine regimens, and identify specific barriers to medication nonadherence.

Bring ALL Your Medicines to EVERY Appointment!

- This includes:
- Prescription medicines.
 - Over-the-counter medicines.
 - Herbal medicines.
 - Vitamins and supplements.



- Your healthcare provider will go over them with you to:
- Review what you are taking.
 - Make sure you are taking them correctly.
 - See if you can take fewer medicines.

Source: AHRQ Health Literacy Universal Precautions Toolkit 2nd Edition: Medicine Review Poster



Implementing the Medicine Review in a Faith-based Clinic

	n (%)
Days in the clinic (DC)	9
Provider visits (PV)	100
Prescription medicines reviewed with patient (PMRwP)	73
Medication bags distributed (MBD)	47
Medicine reviews conducted (MRC)	26 (55)

Medication Categories and Percentages of Adherence Versus Nonadherence

Patients who received medicine reviews (26 Total)

Item Evaluated	Adherence	Nonadherence
	n (%)	n (%)
All prescription medicine containers to visit	20 (77)	
Some prescription medicine containers to visit		3 (11.5)
Did not bring in all prescription containers to visit		3 (11.5)
All over-the-counter (OTC) medicine containers to visit	10 (38.5)	
Some OTC medicine containers to visit		0 (0)
Did not bring in all OTC medicine containers to visit		6 (23)
Did not take any OTC medicine		10 (38.5)

Medicine Regimen and Problems Found

Item Evaluated	n (%)
Patients who received medicine reviews	26
Problems found with medicine regimen	13 (50)
Medicine regimen, possible risk to patient safety	2
Changes made to medicine regimen after medicine review	5 (19)

Specific Problems Found with Medicine Regimen

Item Evaluated	n (%)
Patients who received medicine reviews	26
Problems found with medicine regimen	13 (50)
Started taking a new over-the-counter medicine without telling a clinician in the clinic	4 (31)
Stopped taking their prescription medicine or without telling a clinician in the clinic	3 (23)
Medicine correct but dose incorrect	1 (8)
Taking a new prescription medicine (e.g., prescribed by another clinician) or over-the-counter medicine or supplement without telling the clinician in this clinic	1 (8)
Containers did not match the medicine list in the electronic health record	1 (8)
Medication nonadherence	1 (8)
Failure to refill prescription	1 (8)
Failure to discontinue medicine as directed by clinician	1 (8)