



Improving Medication Reconciliation in an Out-patient Pediatric Hematology-Oncology Clinic

Small Group QI Project (1-10) physicians-Completed project

* **QI Project Title (a brief title for your project)** *Better Otis Management at 123 Pediatrics*

Improving Medication Reconciliation in an Out-patient Pediatric Hematology Oncology Clinic

* **Where do you work?**

Pediatric Medical Center

* **When did the project begin?**

Dates should be provided in mm/dd/yyyy format.

01/01/2013

* **When was the project completed or when was the most recent cycle of improvement finished? (if approved credit will be awarded on this date) Dates should be provided in mm/dd/yyyy format.**

06/01/2014

Quality Improvement Project Description

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* **What problem (gap in quality) did the project address?**

e.g. Influenza vaccination rates in our practice were consistently lower than the national standard, resulting in an increased frequency of flu among our pediatric patients.

Medication reconciliation is an important component of providing good patient care. The 2011 the Joint Commission in National Patient Safety Goal (NPSG) Number 8 set as a target that providers should accurately and completely reconcile medication across the continuum of care (1). While this target was being met with success in the inpatients units of our hospital with more than 90% of patients who are admitted having their medications reconciled, things were very different in the outpatient setting with just under 50% of patients having medication reconciliation. There are several benefits of having optimal medication reconciliation. First, it promotes a culture of safety in the hospital. Second, it could improve reimbursement through the Meaningful Use of Electronic Medical Records Program, which a component of the Medicare Program. We noticed during clinical encounters with outpatients that some of the patients being seen had not had their electronic medication profile updated for several months. We decided to improve on the quality of medication improvement following this by carrying out a quality improvement in our outpatient pediatric hematology-oncology clinic.

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* What did the project aim to accomplish?

An aim statement should state a clear, quantified goal set within a specific time frame. It states what you tried to change, by how much, and by when. For more information about forming an aim statement, visit our [QI Guide](#).

A: What did you try to change?

e.g. *We aimed to improve our practice's influenza vaccination rate*

Our aim was to increase in the proportion of patients who had their medications reconciled.

* B: What was your improvement goal?

e.g. *Improving our rate to 85% compliance*

From 48% to 90%

* C: What was the time frame for this to be accomplished?

e.g. *9 months*

We sought to achieve this change over a period of about 10 months (between 10/2013-05/2014)

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* List the measures used to evaluate progress.

Measures are directly related to the aim statement, showing whether a project's changes are resulting in improvement.

Visit our [QI Guide](#) for information on choosing measures.

Example project: Improving Vaccination Compliance

Example Measures Table:

- . **Measure Name:** *Influenza vaccination compliance*
- . **Goal:** *85%*
- . **Unit of Measurement:** *Rate of compliance status*
- . **Data Source:** *EHR*
- . **Collection Frequency:** *Monthly*

Click "Add a Row" below to describe each measure used in your project.

Measure Name: Medication Reconciliation Rate

Goal: 90%

Unit of Measurement: Percentage

Data Source: EHR

Collection Frequency: Weekly

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* What interventions or changes were made?

e.g. *Education for our clinical staff on importance of this vaccine, added compliance check in patient's EHR, utilized pamphlets on this vaccine in well patient visits.*

Planning: During this phase baseline data was collected by reviewing the medical records of patients seen in clinic for one month. Following this, the intervention was planned. Power point slides were prepared to present the baseline data and to educate providers on how to improve our medication reconciliation rates. A flyer was designed for use in clinic to continually remind providers about medication reconciliation.

Intervention: The intervention used in this case was provider education during meetings and through the use of a provider education flyer in order to effect behavioral change and improve medication reconciliation. A similar strategy was used in order to improve our influenza immunization rates so the providers were familiar with this approach.

1-Provider Education Meeting: After the baseline medication reconciliation data was collected, a meeting was held in which we discussed our current medication reconciliation status and the need to improve our current numbers. During subsequent weekly and monthly meetings, participants were updated about our current rates of medication reconciliation and encouraged to continue working to improve the rates.

2-Medication Reconciliation Flyer: A Medication Reconciliation Flyer was created and was distributed in our outpatient clinic at several locations where it was visible to providers taking care of patients in order to remind them of the need to improve our medication reconciliation. An electronic copy of the flyer was sent via email.

I also met with pediatric hematology oncology fellows monthly during our didactic meetings and assisted them in showing how the process of reconciling medications and updating the electronic record was done.

Data Collection: Data was collected weekly by reviewing clinic records for each patient and then reviewing the medication reconciliation status. The data was recorded on an excel spreadsheet.

Results: At baseline the percentage of medication reconciliation was 48%. Following the start of the intervention, we were able to improve initially to 60% and then steadily to about 69%. There was a decline in our overall peak performance to 63% by the time the project was completed which was thought to be due to saturation of the participants.

Follow up: A key to medication reconciliation identified included failure by certain providers to update the medication profile due to lack of awareness which improved with time. Another barrier included the clinic workflow which at times made it difficult for providers to know who was supposed to ask about medications and update the electronic records of the patients. This project made providers aware of the importance of medication reconciliation. Although the original set target was not achieved, we identified some of the barriers to medication reconciliation such as the patient flow in clinic and plans were made to improve this process. A second PDSA cycle was planned but not started by the time I graduated from fellowship.

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* Attach the project's de-identified aggregate data over time.
There must be at least 3 points of measurement. Up to 3 files may be uploaded. Visit our [QI Guide](#) for examples of data reported over time.

Graphical_Project_Data_Over_Time.JPG

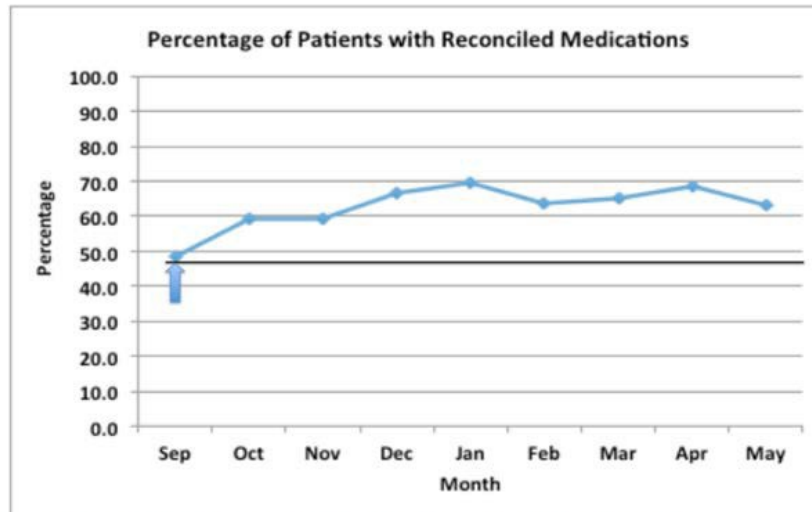


Figure 1 Run Chart showing the trend in percentage of patients whose medication was reconciled. The arrow indicates the baseline and the horizontal line indicates the percentage at the baseline. There was improvement in the percentage of patients with reconciled medications over time.

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Has your project been presented at a national scientific meeting or published in a journal?

Yes

Name of scientific meeting or publication.

[FULL REFERENCE WOULD BE LISTED HERE]

Attach your presentation or publication here.

Additional Information

You may submit up to 5 additional files/tools used in this project, such as Key Driver Diagrams, Root Cause Analysis, Pareto Charts, etc.