Improving Medication Side Effects Documentation and Clinician Understanding in Home Health

Katherine Bales
kbales2@usfca.edu

Follow this and additional works at: https://repository.usfca.edu/capstone

Part of the Public Health and Community Nursing Commons

Recommended Citation
https://repository.usfca.edu/capstone/1381
Improving Medication Side Effects Documentation and Clinician Understanding in Home Health

Katherine Bales

Department of Nursing and Health Professions, University of San Francisco

NURS 660: Practicum: Quality Improvement and Outcomes Management

Professor David Ainsworth

July 24, 2022
Abstract

**Problem:** In home healthcare services, care experience scores are increasingly the strategy for evaluating the continuity of care to patients who require post-hospital follow up and guidance on medication management. Clinician understanding of how to use the available medication education tools impacts how well patients are able to manage their own care.

**Context:** The organization’s Home Health clinicians have not done well providing medication education on side effects as evidenced by low survey scores. The focus of the project is improving the medication education provided to patients and documentation thereof. The project takes place in a home health microsystem that serves 370 homebound patients.

**Intervention:** Clinicians were re-educated on the *My Medication Matters* teach back tool to improve care practice and standardize documentation of medication side effect education.

**Measures:** The outcome measure is the percentage of *Yes* answers to the survey question on medication side effects education completed by Home Health patients. To establish the baseline, the data was collected from October 2020 through September 2021. Rolling mean data was collected over the course of the intervention from January 2022 through April 2022.

**Results:** The baseline survey score for medication side effects was 68%. After four months of interventions, the score was 75.7%, an increase of 11.32%. In the fourth month the rolling mean decreased to 73.3%, a 7.8% increase over baseline.

**Conclusion:** Consistent medication side effects instruction and documentation using the *My Medication Matters* tool raised the survey scores on medication side effects education over the four-month intervention. Clinicians trained in patient education on medication side effects are well positioned to encourage home health patients to be part of the care team and support better health outcomes.
Improving the safety of using medication is one of The Joint Commission 2022 National Patient Safety Goals for Home Care (Joint Commission, 2022). Medication safety is important due to the growing number of people who are prescribed multiple medications, and who have difficulty managing those medications. Patient familiarity with their medications, which includes action and side effects, is integral to the goal of using medications safely, and thereby reducing negative patient outcomes (Joint Commission, 2022).

The 2022 organizational goals for the Home Health department of a large hospital-based healthcare system in Northern California revolve around care experience scores, including those for medication safety and medication side effects. Care experience scores are determined from surveys administered through the Home Health Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) that are sent to patients after discharge (Centers for Medicare and Medicaid Services [CMS], 2020). The survey contains 34 questions on the patient’s perception of the care received, spanning the domains of communication about care, pain and medication use, care provided by the home health agency and staying informed about care. The data from HHCAHPS survey is converted to a Star Rating, which reflects the level of positive responses. The Star Rating is reported to the home health agency and is made publicly available on the Medicare.gov Home Health Compare website.

A problem for the healthcare system’s Home Health department is a question on the survey that asks if medication side effects were discussed during the patient’s care by Home Health clinicians. Home Health’s score on this question was far below the organization’s target, and the lowest of 18 Home Health departments in the health system’s northern California region. The low score brought into question the quality of care on medication administration, as well as depressing the Star Rating on the Home Health Compare website. The quality coordinator, the
project co-lead for this quality improvement test of change, identified that improving Home Health clinician’s understanding of medication side effects would be necessary to reach the Home Health department’s organizational goal and improve the quality of care for Home Health patients.

**Problem Description**

A review of the care experience report from October 2020 to June 2021 revealed a score of 66.8% on Question 14, which asks the patient if medication side effects were discussed during care. Home Health is at the bottom of the list in the entire northern California region, which consists of 18 Home Health departments with a median score of 80% and a top score of 91.3%. As this is a project metric that matters, providing instruction on medication side effects should be included in every Home Health visit to help identify any potential medication issues, and to follow the organization’s policy.

A performance improvement team was formed with the rehabilitation supervisor as the co-lead, a registered nurse (RN) quality coordinator as the co-lead, along with one physical therapists, one occupational therapist, and two RNs. The physical therapist, occupational therapist, and RNs all work in the field providing direct patient care. An initial meeting was conducted to investigate why the scores on Question 14 were low. One key finding offered by an RN in the field was that the tool *My Medication Matters*, was not being used correctly or consistently. *My Medication Matters* is a tool used with Home Health patients that incorporates “teach back” as a method to make sure patients comprehend instructions. Research shows patients comprehend and recall less than half of what their care providers explain to them (Prochnow et al., 2018). Furthermore, patient education on medications is not provided until discharge, when it is difficult for patients to understand all their medication information at once.
For Home Health clinicians, the lack of knowledge on how to use the *My Medication Matters* tool impedes presenting information appropriately and properly documenting their instructions to the patient. One of the nurses on the performance improvement team commented that the roll out of *My Medication Matters* was rushed and no subsequent education or reminders followed the presentation. Based on these findings, the performance improvement team decided to provide re-education on *My Medication Matters* and standardized documentation on patient education on medication side effects. A description of the project is provided in Appendix A Project Charter.

**Available Knowledge**

**PICOT Question**

A PICOT question was created to aid in a literature search. The PICOT question asks:

For Home Health patients (P), how does providing education regarding medications (I) compared to standard care (C) affect the percentage of chart audits (O) in 5 months (T)?

**Search Strategy**

A literature search was conducted in February 2022 using the database CINAHL with a date range of 2017 to 2022. Terms searched were *medication, side effects, and education*. The CINAHL search yielded 350 articles. The articles were narrowed by eliminating duplicates and studies that did not directly address medication side effects. The remaining articles were examined for inclusion of medication education along with medication side effects. Five studies met the inclusion criteria. The studies were then evaluated using the Johns Hopkins Research Evidence Appraisal Tool (Dang & Dearholt, 2018). The appraised studies ranged from Level 1 to Level V, with quality ratings A through C.

**Review of Evidence**
One study discusses how medication adherence among patients with hypertension is still a challenge, even after medication education is included in their care (Ampofo et al., 2020). The study by Ampofo et al. (2020) was a systematic review and meta-analysis of different education methods in hypertension participants that promote medication adherence. A search was performed on the databases EMBASE, MEDLINE, PsycINFO, CINHAL, PUBMED, HTA and Cochrane for studies published between 1999 and 2019. The inclusion criteria were randomized control studies and observational studies with adults age 18 and above with uncontrolled hypertension. Twelve studies yielded that fit the study criteria. Results showed improved outcomes in health literacy and medication adherence when verbal educational interventions occurred. Participants who received frequent follow ups with medication education showed even greater improved outcomes for medication adherence and health literacy. Using the Johns Hopkins Research Evidence Appraisal tool, the study rated Level III Quality B.

According to Bowen et al. (2017), medication education is needed for positive patient outcomes, but there are limited information on medication education in the hospital and care transitions. A cross sectional survey was administered to examine nurses’ behaviors and attitudes towards medication education. Participants in the study were 24 nurses from departments internal medicine, cardiology and medical surgical. The survey asked questions such as nurses’ views regarding medication education, medication side effect education, and checking for patient understanding and medication regimen adherence. The outcome showed positive behaviors and attitudes by the nurses, but revealed a need for education materials to make instructions simpler, and thus easier for patients to understand. Using the Johns Hopkins Research Evidence Appraisal tool, the study rated III C.
In a systematic review of evidence on the potential negative impact of informing patients about medication side effects, Jose & AlHajri (2018) recommended that patients be given medication safety information as part of their care. The authors brought up the concern that while medication side effects information should be provided to patients, could that information affect patients’ compliance with medication adherence and clinical outcomes? A systematic search in PubMed and Cochrane libraries for studies published between 1975 and 2017 yielded 2012 studies. These were narrowed down to 17 randomized control trials that fit the inclusion criteria. The results did not provide sufficient evidence to support a negative impact on medication adherence and clinical outcomes when medication side effect education was provided to the study participants. Using the Johns Hopkins Research Evidence Appraisal tool, the study rated Level I Quality B.

According to Prochnow et al. (2018), patients and caregivers are not sufficiently informed about new medications. The authors maintained that nurses are well positioned to lead change that improves medication education. A quality improvement project was conducted using a teach back tool kit developed by the Ottawa Model of Research Use. The study consisted of 25 registered nurses, 74 patients and 33 caregivers. The registered nurses were observed while providing education using the teach back tool kit. A survey was administered to the nurses before and after providing education to the patients to evaluate the nurses’ comfort levels with the tool kit. Results showed improvement for patients and caregivers recalling medication purpose and side effects when teach back was used. Using the Johns Hopkins Research Evidence Appraisal tool, the article rated Level V Quality B.

See et al. (2020) discussed medication safety and how patients perceive risks and benefits of their prescribed medications. Qualitative data was gathered from an online survey
administered to 1079 participants who responded to questions on side effects, risks of medications, and their understanding medication safety. The authors found patients were unaware of the roles of pharmaceutical companies and government agencies in ensuring medication safety and of the importance of reporting medication side effects. From the result, the authors concluded that there is an ongoing need for education on medications, their safety, and their side effects. Using the Johns Hopkins Research Evidence Appraisal tool, the article rated Level III Quality B.

The review of the five studies provided a clear picture of the benefits of medication education. While barriers to medication education exist, evidence shows the overarching goal to provide information to patients in to encourage involvement in their healthcare is reasonable and within reach. Evidence supported medication education by nurses, but not by nurses alone. Other providers who work directly with the patients, for example physicians, pharmacists, and rehabilitation clinicians also have a role in medication education, providing continuity and re-statement of medication education to help patients better understand the medications and use them safely. The evidence table is shown in Appendix B.

Rationale

The framework selected for the medication side effect project is the Steven Star Model (Stevens, 2004) with the five steps of discovery, summary, translation, implementation, and evaluation. The medication side effects PI team has discussed barriers and potential interventions to improve medication side effects education. One of the proposed interventions is using the My Medication Matters tool kit, where teach back is the method of instruction. The first step (discovery) is where research is conducted to look for evidence-based studies to see if teach back methods would be beneficial. The second step (summary) narrows the evidence to a more
manageable quantity. The third step (translation) packages the evidence summary into a form that considers care standards, time of instruction, and cost. Once completed, planning for step four (implementation) began. The plan in this step is to re-instruct teach back methods from the *My Medication Matters* toolkit, which was poorly introduced a few years ago. After implementation, in step five (evaluation) the data was reviewed to see if the intervention made a difference. The Steven Star Model is shown in Appendix C.

**Specific Project Aim**

The global aim is to improve Home Health’s overall patient survey rating from three stars to three and a half. The specific project aim is to improve the percentage of the patient’s response to the HHCAHPS question 14 from 68% baseline to 70% which asks the patient if medication side effects were discussed during care by May 2022 in the Home Health department.

**Context**

The performance improvement project was initiated by examining the Home Health microsystem using the five Ps (purpose, patients, practice, process, and patterns) to identify gaps in care and prioritize areas of focus (Godfrey et al., 2003). According to Harris et al. (2018), a microsystem is the smallest unit on the front line of healthcare delivery systems. The microsystem is where the quality of care is defined, and the reputation of the organization created. Being familiar with a microsystem and working towards quality improvement within a unit affects patient care in the macrosystem.
Microsystem Assessment

Purpose

The purpose of the Home Health department is to provide direct skilled care that is safe, individualized, and timely in the patient’s home environment.

Patients

The Home Health department serves a diverse patient population of 370 homebound patients who require skilled services such as medication management, disease instruction, infusion, wound care, strengthening, and gait training. The patient population is spread across three counties with different socioeconomic and age demographics, and distinct cultural and religious backgrounds.

Practice

The Home Health department of 87 employees is divided into field clinicians and office/administrative staff. The field clinicians provide direct patient care, and consist of skilled nurses, physical therapists, occupational therapists, speech therapists, dieticians, medical social workers, and home health aides. The office/administrative staff follow a chain of command led by the medical director and service director who oversee both home health and hospice directors. The Home Health director and the quality director then oversee the quality coordinators, supervisors, department secretaries, and the data specialist. The office/administrative staff are a resource and support for field clinicians to provide safe, quality care to patients.

Process

Home Health uses different processes to provide safe and effective patient care. The Home Health Policy and Procedure Manual gives an overview of all aspects of care and serves as a guide for daily practice and operations from home visit requirements to documentation.
requirements. Another guideline that must be followed by Home Health is the set of CMS guidelines for home health care. Other guidelines and processes in place are more in depth, such as documentation guides and tip sheets for use of the electronic medical record. Another process is the use of chart audits and tracer visits to monitor clinician practices.

**Patterns**

The Home Health department population is characterized by patients with chronic and acute illnesses that are managed by multiple medications. For this reason, medication education is a necessity for safe and effective patient care. A pattern identified in Home Health is an unacceptably low HHCAPS score on medication side effects instruction.

**Strengths, Weakness, Opportunities and Threats (SWOT) Analysis**

**Strengths**

A strength of the microsystem is the Home Health clinicians who are motivated to provide excellent patient care and are receptive to guidance. The Quality team is a resource for providing guidance on compliance, policies, and best practices. The third strength is the *My Medication Matters* tool kit is widely used for medication education and is familiar to the Home Health clinicians.

**Weakness**

Supervisors do not consistently hold clinicians accountable for documentation compliance. Documentation compliance is a lower priority than preparation for the Joint Commission survey, which is concurrent with project implementation.
**Opportunities**

An opportunity is expanding re-education on the *My Medication Matters* tool kit to other Home Health departments and hospital departments in the region to improve medication education in patient care.

**Threats**

A threat would be an additional Covid-19 surge that would compete for hospital resources and it would also impede clinicians’ ability to treat their patients. A Covid-19 surge would be expected to increase the Home Health patient census, thereby exacerbating staffing issues, including burn out and attrition. SWOT analysis table is shown in Appendix D.

**Return of Investment (ROI)**

Dalleur et al. (2021) analyzed 534 cases of 30-day readmissions and found that 80 cases were due to a potentially avoidable adverse drug event. Readmissions are costly and account for a huge part of the nation’s healthcare spending. According to Weiss & Jiang (2021), writing in an Agency for Healthcare Research and Quality (AHRQ) statistical brief, determined an average readmission cost $15,200. Improved medication side effects instruction does not cost nearly as much as a readmission. Home Health clinicians see the 370 patients on Home Health’s census from as few as two times per month to as many as 20 times a month, providing many opportunities to teach medication side effects and avoid readmissions. Published data for home health services cost of care averaged $5,591 per 60 days of care in 2020 (Medpac, 2022). The return of investment projection is based on readmission cost avoidance. One readmission avoidance event would save the healthcare organization macrosystem $9,264. This amount is derived from $15,200 (cost of readmission) minus $5,591 (cost of home health services/ per patient/ 60 days) minus $691 (average cost of materials/ 60 days). Even reducing Home Health
readmissions by 1% (3.7 patients) represents a cost avoidance of $34,862 for 60 days or $209,172 per year. The budget and return of investment are shown in Appendix E.

**Communication Plan**

The communication plan for this project included meetings with the Quality Director, data analyst, and the performance improvement (PI) team. Monthly meetings with the Quality Director and Data Analyst took place to go over the status of the project and the data. The Quality Director then presented the metrics to the Continuum Administrator monthly. One to two meetings per month occurred with the PI team to identify barriers, plan for implementation, and create education materials. These were then presented to all staff, either during the monthly all staff meetings or the weekly quality huddles.

**Interventions**

The interventions for this project were to re-educate the clinicians on the *My Medication Matters* tool kit and to standardize documentation for medication side effect education. The first re-education session was held in January 2022 with a simplified version of the *My Medication Matters* tool kit. All Home Health clinicians participated. A follow up session was held in February 2022 with highlights from the January presentation to reinforce the most important content. The third education session was held in May 2022 where the updated medication smart phrase was presented for standardized documentation. Education materials are shown in Appendix F.

To develop the interventions, the PI team brainstormed how to address the key barrier regarding the *My Medication Matters* tool to kick off the start of 2022. The RN quality coordinator reviewed the previous educational materials and discussed them with the PI team. The medication education smart phrase used for documentation was incomplete. The smart
phrase did not prompt the clinician to document the specific medication that was being instructed. Since the smart phrase did not prompt the clinician to include the specific medication, the clinicians thought this was not required. The smart phrase was updated to include a prompt for the specific medication for which instruction was provided.

**Study of the Intervention**

Once the interventions were identified, measures (outcome, process and balancing) were chosen to evaluate the test of change. Two Plan-Do-Study-Act (PDSA) cycles were used to study the interventions as they proceeded. PDSA is a method to test a change using four steps: planning, doing, studying, and acting (Agency for Healthcare Research and Quality, 2020).

The initial PDSA cycle was with the re-education of the Home Health clinical staff on use of the *My Medication Matters* tool kit. The information was well received. Then in February a presentation of the highlights from the re-education of the *My Medication Matters* tool kit was presented to keep medication side effects a focus and to reiterate the instruction previously given. The data from chart reviews showed that clinicians were documenting medication side effects, but documentation was incomplete. The specific medication, use of the tool kit, and patient response to education were not all consistently included in the documentation.

The PI team investigated the current smart phrase and found it to be incomplete. The PI team informed the regional quality department and asked for the smart phrase to be updated to include all required elements. Once the smart phrase was updated and approved, a plan to provide instruction was developed. However, the PI team was not able to present the information until May 2022 due to cancelled staff meetings. In June 2022, another presentation was made to reiterate the smart phrase documentation requirements.
Measures

The outcome measure is the percentage of Yes answers to Question 14 on medication side effects instruction in HHCAHPS surveys completed by Home Health patients. The outcome measure data are collected through Strategic Healthcare Programs, a vendor that collects, processes, and presents the data for the Home Health department. The rolling linear mean data was collected monthly from October 2020 through May 2022. October 2020 through September 2021 data provided the baseline, whereas January 2022 through May 2022 data represented the test of change.

The first process measure is the percentage of chart audits where clinicians documented instructing medication side effects. The second process measure is the percentage of Yes answers to question 40 on the tracer tool, the data for both measures are collected through the Joint Commission Resources reports. The balancing measure is the number of times that clinicians do not use the medication education smart phrase in their documentation. This balancing measure was chosen as the way clinicians document is not expected to change even though re-education on My Medication Matters was provided. A measurement strategy table is shown in Appendix G.

Ethical Considerations

Providing instruction to patients on medication side effects encourages patient involvement in their healthcare. Clinicians apply the Jesuit value of cura personalis, where each patient is assessed as a whole person and address their needs (University of San Francisco, n.d.). Treating the patient as a whole with respect and a positive attitude allows the patient a better care experience and addresses any potential problems that could affect the patient’s overall health. Provision 2 of the American Nurses Association Code of Ethics (2015) states that the nurse’s
The primary commitment is to the patient, which aligns with the intent of this project to increase patient satisfaction and heighten engagement in their care.

This project had been approved as a quality improvement project by the University of San Francisco School of Nursing and Health Professions faculty with consideration of quality improvement review guidelines and does not require IRB approval. IRB Non-research Determination form is shown in Appendix H.

**Outcome Measure Results**

The purpose of this PI project is to improve clinician medication side effects education and documentation. The outcome measure is the HHCAHPS score for Question 14 medication side effects education. Outcome measure results are presented for four months of intervention data, January through April 2022. Data was collected for May 2022, but HHCAHPS scores will not be available until August, at which time the project will have been completed.

The baseline HHCAHPS score for medication side effects was 68%. After one month of intervention, when clinicians had been re-instructed on the *My Medication Matters* tool, the HHCAHPS score was 75.7%, an increase of 7.7 points. A second re-instruction was conducted in February; the HHCAHPS score remained at 75.7% for March. In April the score was 73.3%. All scores reflect a positive change, with a mean of 75.5%. Refer to Appendix I.

The results were expected. Evidence from the literature reviewed indicated patients who receive frequent follow up with medication education have improved outcomes for medication adherence and health literacy (Ampofo et al., 2020; Prochnow et al., 2018). *My Medication Matters* is a validated and effective tool for medication education used widely across the healthcare organization with positive results. During the implementation, clinicians expressed appreciation of the guidance and information was well received.
Summary

The intervention was effective and produced positive results. Clinicians provided medication education to their patients as evidenced by the change in HHCAHPS scores. Even though the 5.3 point change may appear small, the change is substantive in the context of HHCAHPS scores. The specific aim of a 2% increase was exceeded by 275%.

Preparation for The Joint Commission survey commenced as the PI project was initiated, perhaps explaining the drop in the rolling mean score to 73.3% in April from 75.7% in March. The PI team was not able to provide the education and reminders to the extent planned due to canceled all staff meetings in March and April. A surge in Covid-19 also occurred during project implementation, which imposed staffing constraints and a hold on the project. The medication side effects PI team plans to continue to provide education and reminders regarding medication side effects. A next step is to get the clinical supervisors involved in holding the clinicians accountable for documentation of medication side effects.

One challenge was the difficulty of keeping the field clinicians focused on medication side effects education and documentation, and not digressing into related areas that the project did not address such as the reconciliation of medication list. A lesson learned was that continually restating the goal and the purpose of the test of change was effective in reining the clinicians back in. Positive feedback and recognition in the all staff meetings motivated the clinicians to prioritize medication side effects education in their patient visits. The clinicians in the PI team assumed the role of medication side effects education “champions,” offering coaching and support to their peers to help overcome the challenges of providing medication side effects education. The efforts of these champions contributed to the success of the project.
Conclusion

Clinician lack of knowledge regarding medication side effects education and documentation had contributed to unacceptably low HHCAHPS scores on medication side effects education. The purpose of the project was to improve clinician understanding and documentation of medication side effects through targeted education on *My Medication Matters*. The resulting consistent medication side effects instruction to patients raised the HHCAHPS scores on medication side effects education over the four-month intervention. Clinicians who provide direct care to home health patients are well positioned to provide patient education and encourage patients to be part of the care team. While the scope of this project was limited to medication side effects education, the approach taken with clinicians on patient education and documentation applies to all aspects of care experience. The approach of re-education and reminders used in the project interventions could be applied to other HHCAHPS survey questions on care experience in home health. The medication side effects PI team plans to sustain the project by continuing to provide education and reminders to Home Health clinicians on medication side effects.
References


[http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementSelectingChanges.aspx](http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementSelectingChanges.aspx)


Stevens, K. R. (2004). *ACE Star Model of EBP: Knowledge Transformation.* Academic Center for Evidence-based Practice. The University of Texas Health Science Center at San Antonio. [https://www.uthscsa.edu/academics/nursing/star-model](https://www.uthscsa.edu/academics/nursing/star-model)

University of San Francisco. (n.d.). *Our values.* [https://www.usfca.edu/about-usf/who-we-are/our-values](https://www.usfca.edu/about-usf/who-we-are/our-values)
Appendix A

Project Charter

**Title:** Improving Medication Side Effects Documentation and Clinician Understanding in Home Health

**Global Aim:** To improve overall patient survey rating from three stars to three and a half by May 2022 in the Home Health department.

**Specific Aim:** To improve the percentage of the HHCAHPS question 14 from 68% baseline to 70% which asks the patient if medication side effects were discussed during care by May 2022 in Home Health department.

**Background:**

Home Health’s goal for 2022 revolves around care experience scores which is evaluated using the Home Health Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) survey that gets sent to patients randomly after discharge. The survey is a questionnaire with 34 questions based on a patient’s perception of the care received. A problem area is question number 14 on the survey which asks the patient if medication side effects were discussed during care. Home Health is challenged on this topic. A review of the facility ranking report dated October 2020 to June 2021 showed that this Home Health department scored a linear mean of 66.8 on question 14. Home Health is at the bottom of the list in the whole region. Medication side effects is a part of the Home Care: National Patient Safety goal 2022 of improving the safety of using medications (TJC, 2022). Providing instruction regarding medication side effects should become a routine task during every visit in home health in order to identify any potential medication issues. By doing this, readmissions with medication issues as
the primary diagnosis will also be prevented which over all keeps the patients safe from any medication problems.

**Sponsors**

<table>
<thead>
<tr>
<th>NH- Service Director</th>
<th>SC, JS, KB &amp; JC- Clinical Supervisors</th>
</tr>
</thead>
<tbody>
<tr>
<td>TB- Site Director</td>
<td>AA- Quality Coordinator</td>
</tr>
<tr>
<td>AG- Quality Director</td>
<td>VS- Data Analyst</td>
</tr>
</tbody>
</table>

**Goals**

To improve clinician understanding regarding education of medication side effects during home visits and to provide standardized documentation requirements regarding medication side effects which includes the following:

1. Re-education regarding the My Medication Matters teach back tool kit
2. Scripting and developing key phrases to use during home visits that include the word medication side effects
3. Update the current medication education smart phrase to cover required aspects in documentation

**Measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>Data Source</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patient surveys that answered yes to question 14 where home health department provided education regarding medication side effects</td>
<td>SHP</td>
<td>70%</td>
</tr>
<tr>
<td>% of chart audits where clinicians documented instructing medication side effects</td>
<td>JCR medical record audit report</td>
<td>91%</td>
</tr>
<tr>
<td>% of tracer audits that are answered yes to question 40 which indicates clinician provided education regarding side effects</td>
<td>JCR tracer visit audit report</td>
<td>100%</td>
</tr>
</tbody>
</table>
Balancing

| No decrease in the number of times that clinicians do not use the smart phrase in their documentation | Medical record audit   | <5/month                  |

Team

<table>
<thead>
<tr>
<th>KB- PT Lead</th>
<th>KB- RN Quality Coordinator Co Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>JS- RN supervisor</td>
<td></td>
</tr>
<tr>
<td>JO &amp; AD- Two Registered Nurses</td>
<td></td>
</tr>
<tr>
<td>TJ- Physical Therapist</td>
<td></td>
</tr>
<tr>
<td>CC- Occupational Therapist</td>
<td></td>
</tr>
</tbody>
</table>

References

Centers for Medicare & Medicaid Services (2020). *Home health CAHPS (HHCAHPS)*.

https://www.cms.gov/Research-Statistics-Data-and-
Systems/Research/CAHPS HHCAHPS


https://www.jointcommission.org/standards/national-patient-safety-goals/home-care-
national-patient-safety-goals/
## Appendix B

### Evidence Table

<table>
<thead>
<tr>
<th>Study</th>
<th>Design</th>
<th>Sample</th>
<th>Outcome/Feasibility</th>
<th>Evidence Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampofo, A. G., Khan, E., &amp; Ibitoye, M. B.</td>
<td>Systematic Review and Meta-</td>
<td>12 studies, 4,205</td>
<td>There were low to moderate evidence to support improvement of medication adherence</td>
<td>III B</td>
</tr>
<tr>
<td>Understanding the role of educational</td>
<td>analysis</td>
<td>participants</td>
<td>with education interventions</td>
<td></td>
</tr>
<tr>
<td>interventions on medication adherence in</td>
<td></td>
<td></td>
<td>Useful in looking into effects of medication education interventions</td>
<td></td>
</tr>
<tr>
<td>hypertension: A systematic review and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meta-analysis. <em>Heart &amp; Lung</em>, 49(5), 537-547.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bowen, J. F., Rotz, M. E., Patterson, B. J., &amp; Sen, S.</td>
<td>Cross sectional study</td>
<td>24 nurses</td>
<td>Over 90% of nurses believed education regarding new information such as medications important.</td>
<td>III C</td>
</tr>
<tr>
<td>Nurses’ attitudes and behaviors on patient medication education. <em>Pharmacy Practice</em>, 15(2), 930.</td>
<td></td>
<td></td>
<td>Useful in seeing how nurses’ beliefs affect the way education is provided regarding certain topics</td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Study Design</td>
<td>Participants</td>
<td>Study Details</td>
<td>Rating</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
</tbody>
</table>
Appendix C

Steven Star Model

Stevens Star Model of Knowledge Transformation

© 2015 Used with expressed permission

Discovery Research

1

2

Evidence Summary

5

Process, Outcome Evaluation

4

Practice Integration

3

Translation to Guidelines
Appendix D

SWOT Analysis

**STRENGTHS**
Home Health clinicians are motivated to provide excellent patient care, and are receptive to guidance.
The Quality team is a resource for providing guidance on compliance, policies, and best practices.
*My Medication Matters* tool kit is widely used for medication education and is familiar to the Home Health clinicians.

**WEAKNESSES**
Supervisors do not consistently hold clinicians accountable for documentation compliance.
Documentation compliance is a lower priority than preparation for the Joint Commission survey, which is concurrent with project implementation.

**OPPORTUNITIES**
An opportunity is expanding re-education on the *My Medication Matters* tool kit to other Home Health departments and hospital departments in the region.

**THREATS**
Covid-19 surge that would compete for hospital resources and it would also impede clinicians’ ability to treat their patients.
Covid-19 surge would be expected to increase the Home Health patient census, thereby exacerbating staffing issues, including burn out and attrition.
Appendix E

Return on Investment/ Budget

Cost avoidance projection is based on reducing the readmission rate from 1% to 0% through intervention of clinician medication side effects education.

<table>
<thead>
<tr>
<th>Item Description</th>
<th>One readmission event</th>
<th>1% readmission/ 60 days</th>
<th>1% readmission/ one year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Readmission</td>
<td>$15,200</td>
<td>$56,240</td>
<td>$337,440</td>
</tr>
<tr>
<td>Cost of Home Health Services (60 days)</td>
<td>$5,591</td>
<td>$20,687</td>
<td>$124,122</td>
</tr>
<tr>
<td>Cost of materials (60 days)</td>
<td>$691</td>
<td>$691</td>
<td>$4,146</td>
</tr>
<tr>
<td>Net cost</td>
<td>$9,264</td>
<td>$34,862</td>
<td>$209,172</td>
</tr>
</tbody>
</table>

Assumption 1: The patient census for home health services is 370. A 1% readmission rate= 3.7 patient.

<table>
<thead>
<tr>
<th>Month</th>
<th>Cost of Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>$370</td>
</tr>
<tr>
<td>February</td>
<td>$296</td>
</tr>
<tr>
<td>March</td>
<td>$0</td>
</tr>
<tr>
<td>April</td>
<td>$370</td>
</tr>
<tr>
<td>May</td>
<td>TBD</td>
</tr>
<tr>
<td>4 month total</td>
<td>$1,036</td>
</tr>
</tbody>
</table>

The only out of pocket cost of the project were for printing My Medication Matters booklets.
Appendix F

Education Materials

Why is medication communication a priority?

- Improved patient engagement
- Reduced errors in medical orders
- Increased patient adherence to medication regimens
- Improved health outcomes

Examples of readmissions due to medication side effects:

- Overuse of ibuprofen that caused GI bleed
- Improper use of insulin that caused hypoglycemia
- Improper use of blood pressure medications that caused hypotension
- Pain medications that caused constipation resulting in bowel obstruction

The Method—Ask 3, Teach 3

“Ask 3”:
- What is the name of the medication?
- What is the purpose of this medication?
- What are the possible side effects?

“Teach 3”:
- Teach the patient the name of the medication
- Teach the patient the purpose of the medication
- Teach the patient the possible side effects
**Teach 3 Ask 3**

Have you had any changes in medications?

Have you experienced any Side Effects?

---

**Medication Side Effects**

Byrin Bulinsky, F1; Katherine Baker, RN; Jonatha Santos, RN; Joanne Galley, RN; Andrew Boyce, RN; Torehistoire, P1; CatherinCell, (SP)

---

**Updated Smartphrase Alert!**

*HHHH Educação*

Medication education on *** provided to [patient/caregiver] using the Common Medications & Side Effects Handout and Ask 3/Ask 3 method. (Patient/Caregiver) able to teach back on medication purpose and side effects.

---

**Agenda**

- Updated Smartphrase
- Meds side effects education when short of time
- Modern way to look back on previous instructions
- Survey Percentage for December and January
- (Patient)

---

**How to fit medication side effects education when you are short of time?**

- Review medications that was taught previous visit
- Teach only 1 to 2 medications
- On the try medication matters/handout, once you’ve taught a med then place date and initials
  It makes it easier to know which medication should be taught next.
- On the plan for next visit, repeat what medication should be taught next. Teach on medication was

---

**TEACH 3 ASK 3**

- HAVE YOU HAD ANY CHANGES IN MEDICATIONS?
- HAVE YOU EXPERIENCED ANY SIDE EFFECTS?
Appendix G

Measurement Strategy

Global Aim: To improve overall patient survey rating from three stars to three and a half by May 2022 in the Home Health department.

Population Criteria: Clinicians who care for home health patients

Data Collection Method: Data will be obtained from JCR chart and tracer audit reports and productivity reports to establish a baseline. Once baseline has been obtained reports will be reviewed monthly until May 2022.

Data Definitions

<table>
<thead>
<tr>
<th>Data Element</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>JCR Medical Record Audit Report</td>
<td>Report for medical record audits from 5 chart reviews a week</td>
</tr>
<tr>
<td>JCR Tracer Audit Report</td>
<td>Report for tracer visits that supervisor complete by visiting a patient with clinicians</td>
</tr>
<tr>
<td>Productivity report</td>
<td>Report based on daily productivity of clinicians in the home health department</td>
</tr>
<tr>
<td>Remote client</td>
<td>Current charting system being used by home health that is connected to Health Connect</td>
</tr>
</tbody>
</table>

Measure Description

<table>
<thead>
<tr>
<th>Measure</th>
<th>Measure Definition</th>
<th>Data Collection source</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of patient surveys that answered yes to question 14 where home health department provided education regarding medication side effects</td>
<td>N=# patient surveys that answered yes to question 14 where home health department provided education regarding medication side effects D=# total number of surveys</td>
<td>SHP</td>
<td>70%</td>
</tr>
<tr>
<td>% of chart audits where clinicians documented</td>
<td>N=# charts where clinicians documented</td>
<td>JCR report from Medical record audits</td>
<td>91%</td>
</tr>
<tr>
<td>instructing medication side effects</td>
<td>instructing medication side effects D=# total number of charts reviewed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of tracer audits that are answered yes to question 40 which indicates clinician provided education regarding side effects</td>
<td>N= # charts where clinicians used the medication education smart phrase D=# total number of charts reviewed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JCR report from Tracer visit audits</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix H

IRB Non-research Determination Form

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST *

STUDENT NAME: Katherine Bales

DATE: 4/5/22

SUPERVISING FACULTY: David Ainsworth

Instructions: Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and is a part of usual care. ALL participants will receive standard of care.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is NOT designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does NOT follow a protocol that overrides clinical decision-making.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does NOT develop paradigms or untested methods or new untested standards.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does NOT seek to test an intervention that is beyond current science and experience.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The project has NO funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., not a personal research project that is dependent upon the voluntary participation of colleagues, students and/or patients.</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: “This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

ANSWER KEY: If the answer to ALL of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research.
IRB review is not required. Keep a copy of this checklist in your files. If the answer to ANY of these questions is NO, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

**STUDENT NAME (Please print):** Katherine Bales

______________________________________________________

**Signature of Student:**

______________________________________________________

**DATE** 4/8/22

**SUPERVISING FACULTY MEMBER NAME (Please print):** David Ainsworth

**Signature of Supervising Faculty Member**

______________________________________________________

**DATE** 4/10/22
Appendix I

Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HHCAHPS Rolling Mean</td>
<td>62.1%</td>
<td>76.7%</td>
<td>77.2%</td>
<td>77.1%</td>
<td>75.7%</td>
<td>75.7%</td>
<td>73.3%</td>
<td></td>
</tr>
</tbody>
</table>