Medication Reconciliation Business Plan

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Medication Reconciliation Business Plan

**Executive Summary**

 Medication reconciliation (MR) is becoming more important every patient visit. With the increasing number of patient medications on the patient medication regimen more medication errors are occurring. During transfer in the hospital 1 in 6 patients can have a major medication discrepancy (MD), (Duguid, 2012). This came to light when The Joint Commission (TJC) made a visit to the BHHCS and identified multiple write ups involving MR. The importance of a new MR process pathway is imminent at the Black Hills Health Care System (BHHCS) as no formal MR process is in place prior to the UMary Project Team initiating the project. The implementation plan for this UMary Project Team consists of developing a MR pathway, identifying key stakeholder champions, BHHCS organizational staff education, implementing pilot and data collection, and evaluating this data by the UMary Project Team. Three main project recommendations were used for the implementation plan for the project. Identifying MD, developing a new MR pathway process for home health (HH), and resolving MD within a three-day period. After evaluating the results from the pilot, out of the 10 home health plans of care that met criteria for our trial project, 6 of them demonstrated a medication discrepancy and initiated the home health med rec proposed pathway process. The company facet will not be addressed in this business plan. The organization that was involved in the project is a federal organization and has no specific company facet to address.

 The new MR pathway will create increased patient safety, decrease staff MR charting time, decrease readmission to the hospital from medication errors, and decrease overall cost to direct inpatient care through efficient use of the MR pathway.

**Market Facet**

The patient care population served in this pilot trial were BHHCS home health veterans. The pilot trial agency started with 13 veterans then ended with 10 veterans by the conclusion of the pilot. Two veterans had met home health plans of care goals and discharged from home health services and one veteran passed away prior to implementation of pilot. The goal was to achieve a 60% completion rate of the MR pathway for home health veterans. That goal was accomplished with 6 out of 10 veterans having MDs and then providers following the appropriate steps correcting these discrepancies within a 3-day period. Many barriers played a role in the diminished numbers but mainly the Coronavirus (COVID-19) outbreak played the biggest role. The home health agency that worked on the project had to prioritize certain aspects of care to protect the business from COVID-19. Another barrier was time and needing more time for the pilot to develop further. In the future this would be more beneficial for future projects to have an increased amount of time for pilot trial periods as well as to collect data in the market.

 Medication errors currently cause readmission to the hospital, discontinuation of medications, inappropriate medication therapy, and adverse reactions. According to a national survey from the Office of Disease Prevention and Health Promotion (2019), in ambulatory older adults taking 5 or more prescriptions, 50% of this population had potential drug-drug interactions identified, and 88% had a greater risk of experiencing an adverse drug reaction (ADR). Adverse drug events (ADEs) account for over 3.5 million health care provider visits, approximately 1 million emergency department visits, and approximately 125,000 admissions annually (ODPHP, 2019). This data gives perspective of how serious medication discrepancies can be for an organization financially. Correcting these MDs before they become an ADE is key to the safety of the patient and decreases cost for the organization.

**Organizational Facet**

 The mission of the BHHCS: “Honor America’s veterans by providing exceptional health care that improves their health and well-being” (Black Hills Health Care, 2019). BHHCS organization’s vision is to be “...patient centered, integrated health care organization for veterans providing excellent health care, research and education: an organization where people choose to work: an active community partner and a back-up for National emergencies” (Black Hills Health Care, 2019). The MR pathway’s intent is to provide increased patient safety, better patient outcomes, and more efficient workflows for staff. This is all encompassed in the BHHCS mission and vision.

BHHCS serves 19,000 veterans. Medical Doctors provide care to 660 veterans receiving home health services and mid-level Nurse Practitioner/Physician Assistants provide care to 510 veterans receiving home health services bringing a total 1,170 veterans receiving home health services (Black Hills Health Care, 2019). BHHCS strategic vision has two priorities: organizational health and improving performance plan.

Organizational health:

* Improving customer service for veterans in the community and BHHCS staff;
* Leaders continuing development of LEAD participants and Six Sigma Lean Process Improvement Project;
* Utilizing the Whole Health concept incorporating the veteran/community home health agency/PACT interdisciplinary team;

 Developing new performance plans:

* Identify performance plans,
* Developing the HH MR Pathway and making it a standard process;
* Veteran support options available for every department at BHHCS;
* Maintaining (TJC) standards, decreasing budget cost, and uses streamlined processes to improve veteran care (Black Hills Health Care, 2019).

**Financial Facet / Budget**

The current annual costs, as of fiscal year 2019, shows direct care cost per patient in the ER is $464.80, the Medical/Surgical Unit, with an average length of stay of three days, was $1,705, and in Nursing Home/Rehabilitation was $689 (Veteran Healthcare Administration Support Service Center Capital Assets Database, 2018). These costs for the fiscal year 2019 represent the most accurate figure for a budget at the BHHCS. The VA is a national organization and no specific budget can be identified for the BHHCS. The overall budget for the VA is in the trillions of dollars and would not be an accurate depiction of the BHHCS budget. The Primary Care Team RN wage $36.00/hour multiplied by 600 hours (total hours of the three team members) equals $21,600 of cost saved by the organization by having students perform this project. According to the Veteran Healthcare Administration Support Service Center Capital Assets Database (2019), between April 2016 to October 2019, 53,898 unique veterans impacted by medication discrepancy, 116,117 unique de-prescribed medications were identified and corrected this in turn resulted in $4,124,507 in annualized cost avoidance. This graduate level EBP project results showed out of the ten home health plans of care that met criteria for our trial project, six of them demonstrated a medication discrepancy and initiated the home health med rec proposed pathway process. This demonstrates a positive financial impact through reduced costs of direct inpatient care at BHHCS through the establishment of efficiency in MR in the VA HH patient population. The discrepancy was identified and reconciled preventing an unwanted outcome for the patient. This saves a trip to the emergency department or a potential admission to the hospital because of the medication discrepancy. This MR pathway can be used for veterans for years to come. The long-term financial impact can reduce cost to the VA and prevent unnecessary clinic/hospital visits.

The example below from Hanna & Robinson (2018) gives an estimation on how much of a financial cost can be for a hospital visit related to a medication discrepancy causing an adverse drug event.

Financial Justification Example

* Choose an outcome that can be evaluated from financial perspective
* For example, medication discrepancies may cause adverse drug events (ADEs)
* Cost estimate for an ADE vary from $4,800 to as high as $10,375
* Calculate the costs of ADEs per year that could be prevented by medication reconciliation
* Calculate the costs of performing the medication reconciliation
* This allows calculation of the annual net savings

The adverse outcomes associated with medication discrepancies can be costly and reduction of these costs can offset the costs of medication reconciliation procedures. Please review the following figures that display examples of financial justifications that can be considered for utilization by hospitals, home health agencies, and long-term care agencies.

|  |
| --- |
| **Financial Justification Example** |
|  |
| Number of discrepancies per patient |
| X number of patients per year that one person can reconcile |
| X number of patients with discrepancies that would result in an ADE |
| X percent of effectiveness of process |
| X cost of an average ADE |
|  = annual gross savings |
|  - salary of employee |
|  = Annual Net Savings |

*Figure 1*: Financial Justification example describing details for equation. Created from “Care Transition Network,” by Hanna, L. & Robinson, D. (2018). Medication reconciliation. *Care Transitions Network.* Retrieved from <https://www.thenationalcouncil.org/wp-content/uploads/2018/05/medication-reeconciliation-slides.pdf>.

|  |
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| **Financial Justification Example for a hospital**  |
|  |
| 1.5 (discrepancies per patient admitted to hospital)  |
| X 6000 patients (average of 20 minutes/patient to complete medication reconciliation) |
| X 0.01 (1% of discrepancies would result in an ADE) |
| X 0.85 (85% of discrepancies avoided through medication reconciliation process) |
| X $2,500 (conservative cost of an ADE) |
| = $191,250 annual gross savings |
| - $45,000 (salary and benefits of an incremental pharm tech)  |
| = $146,250 annual net savings (325% return on investment in a new staff member) |

*Figure 2*: Financial Justification example for hospitals with identified data numbers. Created from “Care Transition Network,” by Hanna, L. & Robinson, D. (2018). Medication reconciliation. *Care Transitions Network.* Retrieved from

<https://www.thenationalcouncil.org/wp-content/uploads/2018/05/medication-reeconciliation-slides.pdf>.

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