
COMPLETED GRANT SYNOPSIS

# The Feasibility of Pharmacy and Home Healthcare Transitions of Care Services in an Emergency Department Population

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## Objectives

1) Determine the feasibility of pharmacy-only or pharmacy and home health care transitions of care services for an emergency department (ED) population

2) Assess emergency department revisit rates and/or hospital admissions, prescribed discharge medication adherence, and identification and resolution of medication-related problems for patients engaged in pharmacy and/or home health care services

3) Describe patient satisfaction with the transition of care service received

## Methods

**Design**

1. Before discharge from the OSU East Hospital ED, eligible patients receiving at least one new prescription (exception: scheduled II controlled substance) were approached by a research assistant to determine interest in participation. For those interested, consent was obtained, patient demographics were collected, and choice of service(s) was selected.
2. Following discharge, the patient received the service(s) selected:
    a. Pharmacy-only:
        i. With delivery: Discharge hospital faxed patient demographics, discharge summary, and discharge medication list to Uptown Pharmacy. The pharmacist contacted the patient's regular pharmacy for an updated medication list, performed medication reconciliation, filled the new prescriptions, and performed a prospective drug utilization review (DUR). Medication-related problems were identified and resolved with the patient via a direct phone call. Newly filled medications were delivered by courier (free of charge) to the patient within 1 day. Follow up phone calls were scheduled for days 3, 10 and 30 post-discharge to gather information related to stated objectives.
        ii. Without delivery: Same as above except new medications were not filled or delivered.
    b. Pharmacy and home health care services: Discharge hospital faxed patient demographics, discharge summary, and discharge medication list to Uptown Pharmacy and Black Stone Home Healthcare. Uptown Pharmacy performed 'pharmacy-only' duties, including medication delivery when selected. Updated medication list after reconciliation was faxed to Black Stone Home Healthcare. Home healthcare contacted the patient's primary care physician and received follow-up orders for care. A home health care nurse visited the patient within 24-48 hours post-discharge. Once in the home, any new or updated information discovered by the nurse was communicated to Uptown Pharmacy via fax. A nurse from home health care was assigned to visit the patient as medically necessary over the course of the 30-day intervention.
3. Data was collected over the course of 7 months related to stated objectives.

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| Study endpoints | 1. Feasibility of 1) pharmacy-only or 2) pharmacy + home health care transition of care services as described by challenges and lessons learned<br>2. Composite of the following transitions of care outcomes:<br>a. Emergency department revisit rates and/or hospital admissions<br>b. Prescribed discharge medication adherence<br>c. Identification and resolution of medication-related problems<br>3. Patient satisfaction with transitions of care services received |

## Results

- Of 181 patients discharged from the study emergency departments, 46 were eligible for the study. Of those eligible, 3 opted to enroll in the study. Patients most commonly declined participation due to a desire to pick up prescriptions in person or desiring to work with their regular community pharmacist.
- All enrolled patients opted to the pharmacy-only service (including delivery).
- Of those enrolled, 3 were available for medication counseling on day of discharge, 1 was available for follow up on days 3 and 10, and 2 were lost to follow up after initial counseling and delivery.
- Study endpoint 1: For the enrolled patients, the community pharmacist's medication reconciliation identified and resolved medication-related problems related to safety, indication, and cost which all directly impacted the patients' abilities to adhere to the individual medications prescribed. However, this program was considered infeasible for this patient population as only a small portion of older adults were discharged home with a deliverable prescription. The majority of patients approached (93%) felt comfortable obtaining their own prescriptions.
- A total of 15 medications were prescribed, including 7 new medications and 8 refills. Medication reconciliation was completed for all 3 patients as well as pharmacist counseling on new medications via a telephone call. All medications were delivered successfully.
- Study endpoint 2:
  - Due to low enrollment, unable to provide sufficient data to prove the hypothesis.
  - One patient was reached successfully at days 3 and 10. On both follow up calls, the patient reported no revisits to the ED or hospital admissions to the original hospital visited or any other hospitals. The patient also reported missing zero doses of the prescribed discharged medication up to day 10 post-discharge. There is no data to report on revisit rates, hospital admissions or prescribed medication adherence at 30-days post-discharge.
  - Pharmacists performed a DUR for all 3 enrolled patients. Five (5) medication-related problems were identified; 3 required interventions and were successfully resolved.
- Study endpoint 3: Patient satisfaction was to be measured at the 30-day follow up call; therefore, there is no data to report on this endpoint.
- Limitations to the study include a large number of patients meeting exclusion criteria (prescription for schedule II medication), a patient population with a reliable system for chronic medication adherence already in place, loyalty to the patient's regular community pharmacy, and a study design dependent on patient interest in services offered without preliminary data to determine the specific population's needs.

## Conclusion

Transitions of care services continue to be identified as a key player in preventing hospital re-admissions and ED revisits. Despite creating a comprehensive transitions of care service team covering hospital discharge, medication fills, and home health needs, and offering a menu of individualized services, including medication delivery at no cost to the patient, patients were unlikely to participate in these services. When pharmacists were invited to participate in the transitions of care process for those enrolled, contributions were made to increase likelihood of patient adherence to prescribed medications and potentially prevent future revisits or admissions. This project supports other literature in identifying a well-rounded transitions of care team and pharmacist as an important health care provider to have at the table; however, low patient participation points to a of how patients may choose to engage in this process. Future studies are needed to 1) better clarify patient needs and patient understanding of their needs, and 2) identify how to best engage patients in the transitions of care process to close the gap.