

Interprofessional Telehealth Program to Address Gaps in Treatment Guidelines for Patients Post-Hospitalization

Bingham J¹, Johnson K¹, Leal S³, Campbell P²

1 University of Arizona Medication Management Center, 2 University of Arizona College of Pharmacy, 3 SinfoniaRx



THE UNIVERSITY OF ARIZONA COLLEGE OF PHARMACY
Center for Health Outcomes
& PharmacoEconomic Research



BACKGROUND

- A gap in the continuum of intensive pharmacovigilance exists for patients at high risk for readmission following hospital discharge.¹
- Most medication errors occur immediately following discharge from the hospital.²
- Few transitions-of-care programs address gaps in adherence to national consensus treatment guidelines.³
- A local hospital collaborated with a university-based medication therapy management (MTM) provider to implement and evaluate a telepharmacist- and nurse-delivered hospital discharge program.

RESULTS

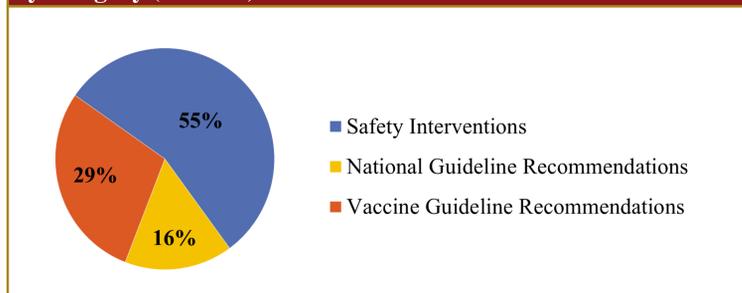
- A total of 340 patient records were retrospectively reviewed by the clinical telepharmacist during the DC Program.
- **Table 1** provides characteristics of patients.

Table 1. Patient characteristics (N=340)

Age, mean (SD)	78 (8) years
Male gender, n (%)	203 (60%)
Female Gender, n (%)	137 (40%)
Race, n (%)	
White	318 (93%)
Other	22 (7%)
Hispanic ethnicity, n (%)	59 (17%)

- A total of 1242 recommendations were made by DC pharmacists.
- **Figure 1** delineates the types of clinical interventions made.
- **Figure 2** shows the types of safety-related concerns identified.
- **Figure 3** illustrates the types of vaccine guideline recommendations made.
- **Table 2** lists the types of national consensus guideline recommendations made.

Figure 1. Discharge Companion Program clinical interventions by category (N=1242)



PROGRAM

- The Discharge Companion (DC) Program was integrated into the hospital's transitional care (TC) team model to: reduce readmissions; improve patient health outcomes; and decrease patient- and hospital-related costs.
- The DC telepharmacist assimilated information from the TC team and hospital records to develop clinical recommendations for adherence to national consensus treatment guidelines and safety-related precautions; the patient consultations occurred via telephone.
- The DC nurse shared the telepharmacist's clinical recommendations with outpatient providers and community pharmacies.

OBJECTIVE

- To improve adherence to national consensus treatment guideline recommendations for: congestive heart failure (CHF); post-myocardial infarction (MI); post-coronary artery bypass graft surgery (CABG); chronic obstructive pulmonary disease (COPD); asthma; diabetes mellitus (DM); and chronic kidney disease (CKD).

METHODS

- This project utilized a retrospective record review design.
- The study period was from August 2015 to July 2016.
- Patient demographics and telepharmacist recommendations were extracted from DC Program reports.
- Descriptive statistics were used to characterize the types of recommendations made during the DC Program.

Figure 2. Number of Discharge Companion Program safety interventions by type (N=657)

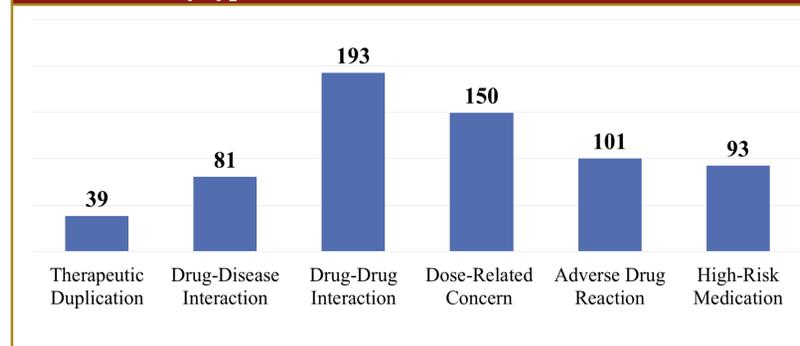


Figure 3. Number of Discharge Companion Program vaccine guideline recommendations made (N=343)

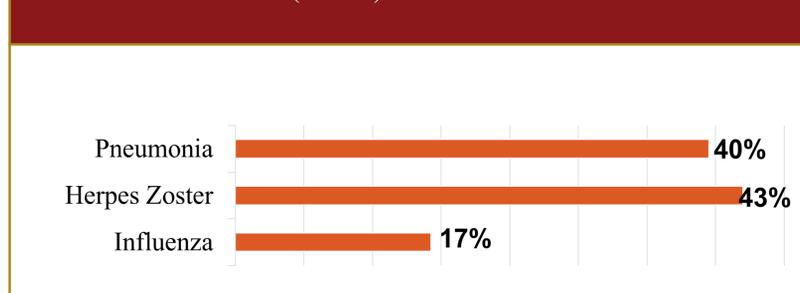


Table 2. Discharge Companion national consensus treatment guideline recommendations (N=190)

Intervention Type	N (%)
CHF – Add Diuretic	24 (13)
CHF – Add ACEi	8 (4)
CHF – Add BB (correct BB)	9 (5)
CHF – Identified contraindicated medication	39 (21)
Post MI – Add Antiplatelet	1 (1)
Post MI – Add SL NTG	28 (15)
Post MI – Add ACEi/ARB	9 (5)
Post MI – Add BB	2 (1)
Post MI – Add Statin	4 (2)
Post CABG – Add Antiplatelet	2 (1)
Post CABG – Add Statin	18 (9)
Asthma – Add ICS	2 (1)
Asthma – Add Rescue	2 (1)
COPD – Add ICS/LABA and/or LAMA	37 (19)
DM – Add Statin	4 (2)
CKD – Add ACEi/ARB	1 (1)

CHF: Heart Failure, ACEi: angiotensin converting enzyme receptor inhibitor, BB: beta blocker, med: medication, MI: myocardial infarction, SL NTG: sublingual nitroglycerin, ARB: angiotensin receptor blocker, CABG: coronary artery bypass graft, ICS: inhaled corticosteroid, COPD: chronic obstructive pulmonary disease, LABA: long-acting beta agonist, LAMA: long acting muscarinic antagonists, CKD: chronic kidney disease.

DISCUSSION

- The MTM telepharmacist and nurse were integral in facilitating focused follow-up appointments between the patient and provider to promptly resolve related concerns and therapeutic-related issues.
- Interprofessional collaboration between the pharmacists and outpatient providers resulted in identification of gaps in care and safety issues.

CONCLUSIONS

- The DC Program was successful in identifying and addressing considerable safety issues and gaps in adherence to national consensus guidelines.
- Future research is needed to determine the impact of longer-term transitional care programs on: improved adherence and patient-related outcomes.

REFERENCES

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