Evaluation of Community Pharmacist-Managed Transitions of Care on Hospital Readmission Rates

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Background

- Many hospitals are focusing on improving patient safety during care transitions in order to decrease hospital readmission rates[1]
- Medication-related issues contribute to significant problems during transitions, resulting in an opportunity for pharmacists to help improve the quality of patient-care.[2]
- The bulk of existing models have limited the role of pharmacists to the inpatient setting.[2,3]
- Since patient safety spans the entire continuum of care, further research is needed to assess the value of implementing community pharmacists in transition of care models.

Objective

- To evaluate the effect of community pharmacist-managed transitions of care on 30-day readmission rates for patients identified to be at high risk for hospital readmission.

Methods

Patients evaluated upon hospital admission by nursing staff using BOOST risk assessment tool on medical, surgical and skilled floors.
- *Inclusion criteria: polypharmacy; high-risk medications; diagnosis of HF, AMI or pneumonia; poor health literacy*

Patients interviewed by study pharmacist. Highest risk patients seen with high priority. Medication-related interventions documented.
- *Interventions: compliance, safety, access, reconciliation*

Hospital stay information sent to patient's routine retail pharmacy upon discharge for follow-up by telephone at 8 and 25 days post hospital discharge.

Retrospective 30-day readmission rates collected and compared using chi square tests.

Results

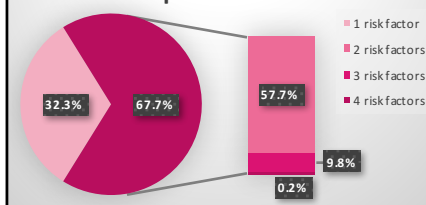### Figure 1: Risk Factor(s) per Patient

Figure 1. Descriptive Data Risk Factor Results:
- 68% of participants met 2+ BOOST criteria, most commonly CHF.
- Patients needed at least 1 risk factor for inclusion.
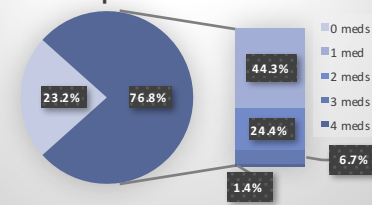
Figure 2: High Risk Medication(s) per Patient

Figure 2. Descriptive Data High Risk Medication Results:
- 77% of patients used at least one high risk medication.
- High risk medications included: anticoagulants, oral hypoglycemics, insulin, dual aspirin/clopidogrel, narcotics and digoxin.

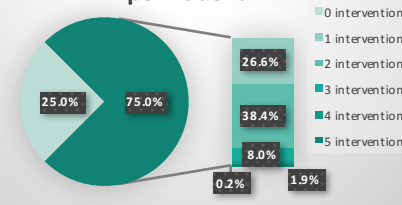### Figure 3: Pharmacist Intervention(s) per Patient

Figure 3. Descriptive Data Intervention Results:
- 75% of patients had at least 1 documented intervention at their initial encounter.
- Most often 2+ interventions were documented per patient.

Figure 4. Results: 30 day readmission rates were collected for high risk patients that were seen by the community pharmacist and high risk patients identified but not seen.

Group	N	Number readmitted	30 day readmission rate
High Risk Patients Seen	497	58 hospital readmissions (within 30 days)	**11.7%**
			p<0.01
High Risk Patients Not Seen	430	92 hospital readmissions (within 30 days)	**21.4%**

Conclusion

- This pharmacist-led transitions of care model led to medication-related interventions. High risk patients receiving this care were half as likely to be readmitted within 30 days.
- The value of community pharmacists in a transitions of care model was supported by this study (Figure 4).
- Being seen by a community pharmacist is associated with a significantly lower likelihood of a hospital readmission (p<0.01).
- A community pharmacist was able to contribute to improved transitions of care.

References

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3. Hume AL, et al. ACCP White Papers: Improving care transitions: Current practice & future opportunities for pharmacists. Pharmacotherapy 2012:326-37.