

Evaluation of readmission rates in heart failure patients who received medication counseling from a pharmacist

Presented by: Katie Brooks
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Abstract #19
IRB Exempt

2

Disclosure

- Potential conflicts of interest: none
- Sponsorship: none
- Proprietary information or results of ongoing research may be subject to different interpretations
- Speaker's presentation is educational in nature and indicates agreement to abide by the non-commercialism guidelines provided

Learning objectives

- Identify potential services pharmacists can provide when managing patients with heart failure
- Discuss potential advantages of medication education provided to inpatients with a heart failure diagnosis

3

Background

- In 2016, approximately 5.7 million adults in the United States had a diagnosis of heart failure
- About half of people who develop heart failure die within 5 years of diagnosis
- Heart failure costs the nation an estimated 30.7 billion dollars each year
 - Health care services
 - Medications
 - Missed days of work

Mazzafarian, et al. *Circulation* 2015;131:38-50.

4

Background

- In 2007, MedPAC reported 17.6% of hospital admissions were readmissions within 30 days of discharge
 - 15 billion dollars in Medicare spending
 - Estimated 12 billion dollars may be preventable
- High risk of readmission
 - CHF, AMI, COPD and pneumonia
 - 2009-2012 median risk-standardized 30 day readmission rate 23.0% for CHF
 - Financial incentive for hospital to lower readmission rates

MedPAC: Medicare payment advisory committee
CHF: congestive heart failure
COPD: chronic obstructive pulmonary disease
AMI: acute myocardial infarction

Aasen, et al. *JAMA* 2011;305:504-505.

5

Background

- Heart failure
 - Multiple co-morbidities
 - Complex medication regimens
- Multidisciplinary approach
 - Pharmacist role
 - Insight on drug interactions and adverse effects
 - Assist in drug monitoring
 - Perform medication reconciliations
 - Medication counseling

6

Setting and design

- Study setting
 - St. John Medical Center, Tulsa, Oklahoma
- Methods
 - Retrospective chart review from March 2017 to September 2017



7

Purpose

- Purpose
 - Assess pharmacist impact on heart failure readmission rates
- Primary endpoint
 - Difference between 30-day readmission rates in patients counseled by a pharmacist compared to those who were not

8

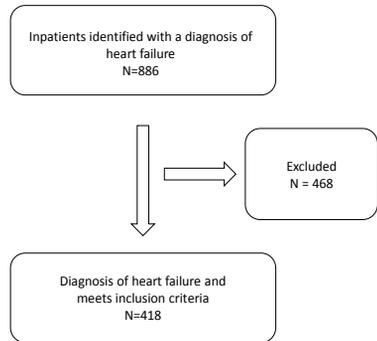
Inclusion/exclusion criteria

Inclusion

- Age \geq 18
- Admitted for primary diagnosis of heart failure

Exclusion

- CMO/Expired
- Encounter was observation or ED visit only
- Heart failure not primary diagnosis



CMO: comfort measures only
ED: emergency department

9

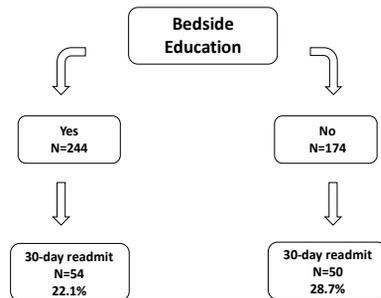
10

Data collection

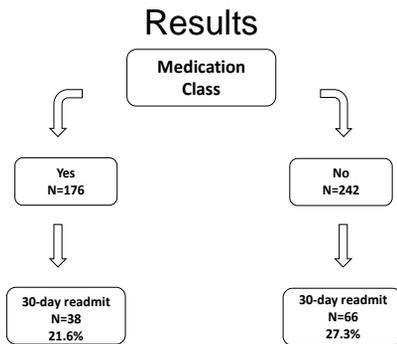
- Bedside education
- Inpatient heart failure medication education class
- Polypharmacy review prior to discharge
- 30-day readmission rates

11

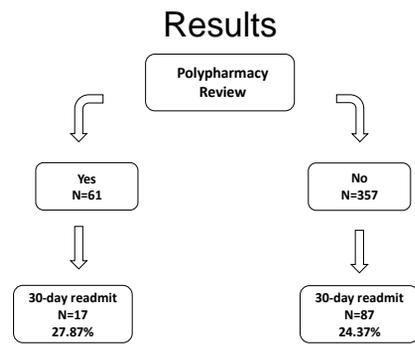
Results



12



13



14

Conclusion

- Identified need to improve inpatient heart failure 30-day readmission rates
- Based on this data pharmacist involvement may decrease readmission rates in this population
- Room for expansion of pharmacy services in patients with heart failure at SJMC
- Multiple interventions decrease readmission rates vs single intervention

15

Limitations

- Retrospective review
- Single institution
- Unclear if all patients identified

16

Impact on Institution

In process

- Dedicate pharmacist to heart failure full time
 - Contact physician about goal directed therapy
 - Identify high risk patients and do bedside education
- Establish pharmacy presence in outpatient heart failure clinic

17

Post assessment question

What is one service pharmacists can provide to better manage patients with a diagnosis of heart failure?

- Administering patient medications
- Counseling only on medications, not diet
- Perform medication education
- Not taking a multidisciplinary approach

18

Post assessment question

What is one service pharmacists can provide to better manage patients with a diagnosis of heart failure?

- A. Administering patient medications
- B. Counseling only on medications, not diet
- C. Perform medication education**
- D. Not taking a multidisciplinary approach

19

Post assessment question

What is one potential advantage of medication education provided to inpatients with a diagnosis of heart failure?

- A. Increased length of hospital stay
- B. Decreased 30-day readmission rate
- C. Increased drug interactions
- D. Decreased medication use in hospital

20

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21

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