

Conference on
Practice Improvement

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Using a Pharmacist as Care Manager for Patients with Uncontrolled Diabetes

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Disclosures

- We have no conflicts of interest.



Objectives

- Identify components and benefits of pharmacy collaborative practice agreements.
- List the outcomes seen by using a pharmacist as a care manager for patients with uncontrolled diabetes.
- Describe the types of drug therapy problems and interventions pharmacists can recognize and intervene on.



Background

- Northeast Iowa Family Medicine – Waterloo, Iowa
- Foundation model, owned by competing hospitals
- 6-6-6 program
- 75+ employees including 5 FM faculty, PharmD, Behavioralist, nurses, billing, reception



Pharm D/Nursing

- PharmD residency – 1/yr
- Two resident teams with 3 RNs and MA for each team
- Nurse for each faculty, 2 with half-time QI
- Quality outcomes annually awarded by insurers; dedicated staff to data
- PCMH level 3 in 2012, recertified 2015



Opportunity

- Diabetic champion physician, former PD retired, mild decline in QI measures
- Faculty nurse leaving (half-time QI)
- Quality database through research network – update monthly
- Staff dedicated to improvement
- Incentive program



Plan

- Nurse manager – hire a full time QI nurse including case management aspect
- PD – consider a Pharm D resident grad
- Hired Dr. O'Brien to start summer 2015
- Care manager – part health coach, part med management, part quality improvement



Study Objectives

To evaluate the effectiveness of a pharmacy care manager in patients with uncontrolled diabetes



Methods

- Enroll sequential clinic patients from July 2015 to January 2016
- Uncontrolled diabetes (A1C >9) or referred by physician for pharmacy involvement
- Care plan developed by patient, pharmacist care manager, and primary physician



Methods

Pharmacist role:

- Make contact with patient at and in between physician visits (in person and via telephone)
- Identify drug therapy problems
- Follow collaborative practice agreements
- Monitor response to intervention with A1C



Drug Therapy Problems

- Needs additional drug therapy
- Unnecessary drug
- Wrong drug
- Dose too low
- Adverse drug reaction
- Dose too high
- Adherence problem

Strand et al. Drug-related problems: Their structure and function. *DICP* 1990;24(11):1093-7.



Collaborative Practice Agreements

A formal agreement in which a licensed provider makes a diagnosis, supervises patient care, and refers patients to a pharmacist under a protocol that allows the pharmacist to perform specific patient care functions.

Source: https://www.cdc.gov/dhdsp/pubs/docs/Translational_Tools_Pharmacists.pdf



Collaborative Practice Agreements

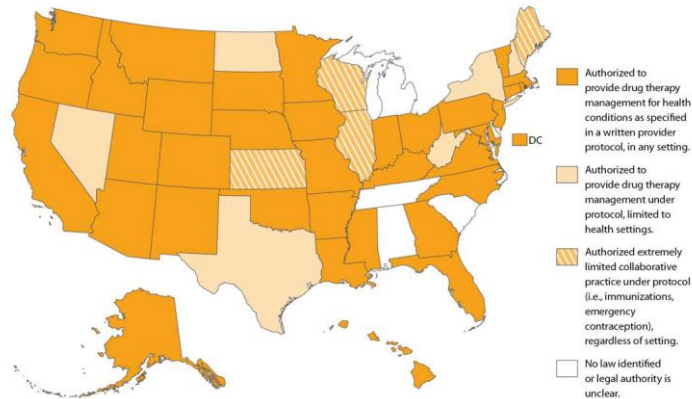


Figure 1. Map of States with Laws Explicitly Authorizing Pharmacist Collaborative Practice Agreements, 2012

Source: https://www.cdc.gov/dhbsp/pubs/docs/Translational_Tools_Pharmacists.pdf



Results

- 68 patients enrolled between July 2015 to January 2016
- Followed over 6 months from initial enrollment
 - 195 in-person visits
 - 374 telephone visits



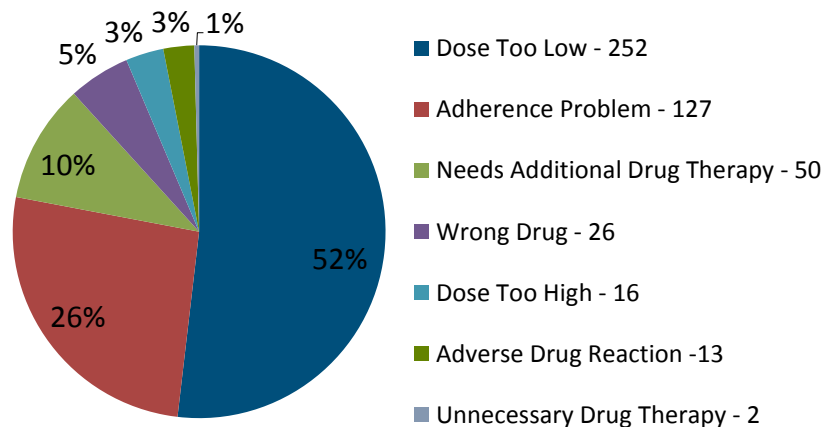
Results: Drug Therapy Problems

Drug Therapy Problem	Number Identified
Dose Too Low	252
Adherence Problem	127
Needs Additional Drug Therapy	50
Wrong Drug	26
Dose Too High	16
Adverse Drug Reaction	13
Unnecessary Drug Therapy	2

Specific Lifestyle Intervention: 148

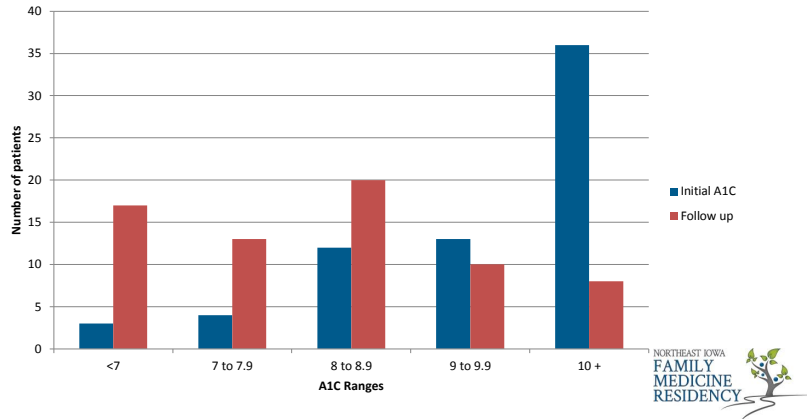
Results:

Drug Therapy Problems Identified



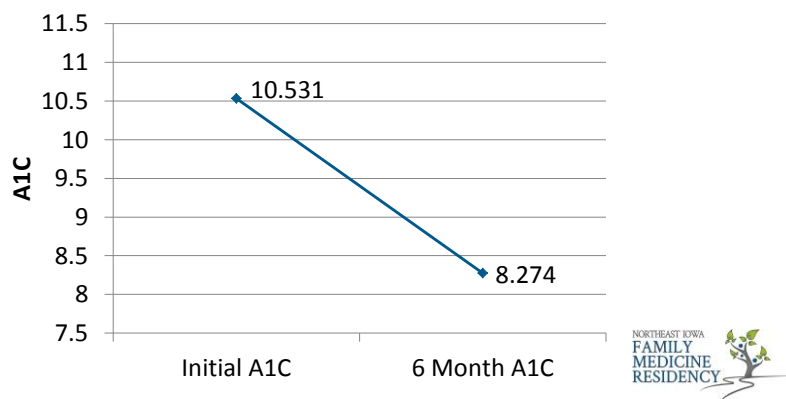
Results: Patients

Number of patients by A1C value at baseline and 6 months

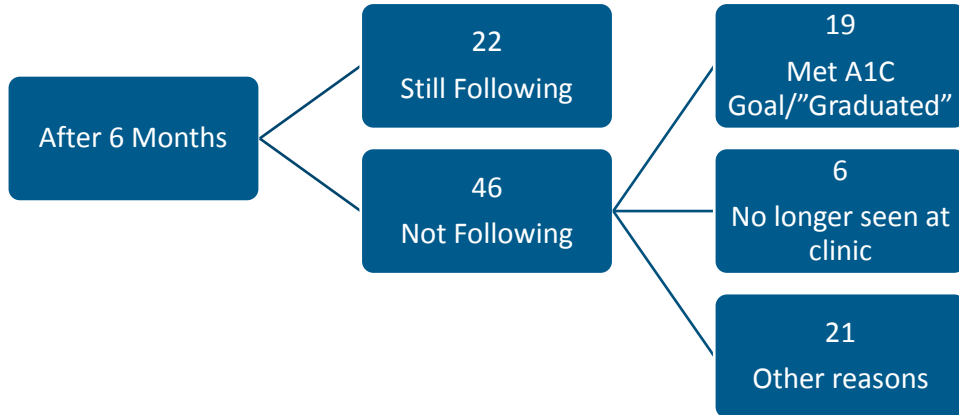


Results: Mean A1C

- Mean initial vs. 6 month A1c value



Results: Post-Study Period



Other Outcomes

- Provider satisfaction

Discussion

- Significant improvement in:
 - Number of patients at A1C goal
 - Average A1C
- Increased categorization of drug therapy problems
- Good physician satisfaction



Limitations

- No comparative data for a non-pharmacist care manager
- Didn't formally measure physician satisfaction



Future Work (Clinic)

- Continue to address compensation strategies for pharmacist work (accredited diabetes education program)
- Expand to other chronic diseases (heart failure underway)



Future Work (Study)

- Evaluate long term trends in patient performance
 - What happens after the intervention stops?
 - What are the best strategies for impacting patients who are not open to care management?



Conclusions

- Our patients and clinic have benefited from having a pharmacist as a care manager for uncontrolled diabetic patients




Highlights

- Collaborative practice agreements simplify titration of medications
- Pharmacists are able to identify drug therapy problems and intervene



Questions?

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