

Joe Litsey, Pharm.D. CGP  
Director of Consulting Services  
Thrifty White Pharmacy

LOWER HOSPITAL READMISSIONS THROUGH  
MEDICATION MANAGEMENT PARTNERSHIPS

NOVEMBER 18, 2015

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OBJECTIVES

- Understand potential implications of poor medication management during transitions of care and the impact it can have on hospital readmissions.
- Examine the importance of collaboration and partnership between healthcare professionals and healthcare organizations in order to improve patient outcomes and reduce hospital readmissions by improving medication management.
- Learn about programs and collaborative work being developed to improve medication management, reduce hospital readmissions and improve overall patient outcomes.

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95+ stores located throughout the Midwest

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## MEDICATION MANAGEMENT AND READMISSIONS

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### MEDICATION MANAGEMENT

**The ability to remain independent depends largely on a patient's ability to manage their medication regimen.**

**Non-adherence to medication regimens is a major cause of nursing home placement of frail older adults.**

Lewis A. Non-compliance: a \$100 billion problem. The Remington Report. 1997; 5(4):14-5.

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### MEDICATION MANAGEMENT AND READMISSIONS

#### Medication Management Concerns

- Poor medication adherence results in 33% to 69% of medication-related hospital admissions in the United States.<sup>4</sup>
- Approximately 1/2 of adults experience a medical error after hospital discharge and 19-23% experience an adverse event which is most commonly related to medications.<sup>5</sup>
- 1/5 Medicare patients - A significant number are medication related.<sup>6</sup>



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### MEDICATION MANAGEMENT AND READMISSIONS

#### Costs of Readmissions

- Readmissions range from \$15 billion to \$25 billion per year.<sup>1</sup>
- Medicare payment Advisory Commission (MedPAC) concluded 2/3 of readmissions were preventable representing \$12 billion in Medicare spending.<sup>2</sup>
- Medicare costs for SNF-related hospital readmissions comprise about 20% of the total cost of all Medicare readmissions.
- MedPAC estimates that readmissions cost about \$7,200 per case.
- Cost of hospital admissions related to medication adherence ≈ \$100 billion/yr.<sup>3</sup>



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### MEDICATION MANAGEMENT AND READMISSIONS

#### Penalties of Readmissions

- Medicare payments reduced for hospitals.
- 1% reduction in 2012 → up to 3% reduction in 2015<sup>7</sup>
- SNF Value-Based Purchasing Program: Included in the "Protecting Access to Medicare Act of 2014"<sup>8</sup>
- Readmission reduction incentive program for SNFs.
- Establishment of a readmission performance standard.
- Medicare payment rates will be based on performance beginning 10/1/18.
- SNFs with highest rankings receive the highest incentive payments. SNFs with the lowest rankings receive the lowest (zero) incentive payments



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UNDERSTANDING MEDICATION MANAGEMENT AND READMISSIONS

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REDUCING READMISSION CAMPAIGN

5 key areas of reducing hospital readmissions

1. Comprehensive discharge planning
2. **Medication management**
3. Patient and family engagement
4. Transition care support
5. Transition communications

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MEDICATION MANAGEMENT

All things pertaining to medication use

<b>Evaluation</b>	Indication
	Administration
<b>Handling</b>	Monitoring
	Dose/Duplication
	Duration
	Storage
	Accountability
	Procurement
	Other

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### MEDICATION INDICATION

Presence  
Accurate  
Location

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### MEDICATION ADMINISTRATION

The 8 "RIGHTS"

1. Resident
2. Medication
3. Dose
4. Route
5. Time
6. Documentation
7. Reason
8. Response

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### ADMINISTRATION PROBLEMS

Timing

Crushing or Chewing

Technique

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### MEDICATION MONITORING

Side effect

Intended effect

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### MEDICATION DOSE & DUPLICATION

"Apparently, too much of a good thing is a bad thing."

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### DOSE/DUPLICATION - FURTHER DISCUSSION

- Dose needs to be listed with order
  - Eye drops; Inhalers;
- Dosing Range
  - **AVOID... If used:**
    - Consistent parameters should be established
    - Dose must be documented
- Poly-pharmacy
  - Multiple psychotropic medications
  - Multiple PRN medications (psychotropics, analgesics)
  - Anticholinergics

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### ANTICHOLINERGIC MEDICATIONS



[www.agingbraincare.org/tools](http://www.agingbraincare.org/tools)  
• Downloadable material....FREE!!

Rating scale of 1, 2, or 3  
1=minimal ACH activity  
3=significant ACH activity

**Anticholinergic Side Effects**




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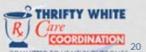
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### ANTICHOLINERGIC COGNITIVE BURDEN LIST (ACB)

Score 1	Score 2	Score 3
<input type="checkbox"/> Alprazolam (Xanax)	<input type="checkbox"/> Loratadine (Claritin)	<input type="checkbox"/> Amitriptyline (Elavil)
<input type="checkbox"/> Furosemide (Lasix)	<input type="checkbox"/> Cetirizine (Zyrtec)	<input type="checkbox"/> Olanzapine (Zyprexa)
<input type="checkbox"/> Metoprolol (Lopressor)	<input type="checkbox"/> Cyclobenzaprine (Flexeril)	<input type="checkbox"/> Quetiapine (Seroquel)
<input type="checkbox"/> Ranitidine (Zantac)	<input type="checkbox"/> Tiotropium (Spiriva)	<input type="checkbox"/> Benzotropine (Cogentin)
<input type="checkbox"/> Risperidone (Risperdal)	<input type="checkbox"/> Carbamazepine (Tegretal)	<input type="checkbox"/> Diphenhydramine (Benadryl)
<input type="checkbox"/> Trazodone	<input type="checkbox"/> Oxcarbazepine (Trileptal)	<input type="checkbox"/> Oxybutynin (Ditropan)
<input type="checkbox"/> Warfarin (Coumadin)		<input type="checkbox"/> Tolterodine (Detrol)




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### CASE STUDY: 1

Medication	Dose/route	Frequency
Digoxin	0.125mg	Daily
Furosemide	40mg	Daily
Olanzapine	5mg	Daily
Carbamazepine	200mg	Three time daily
Diphenhydramine	25mg	QHS PRN
Xalatan Ophthalmic	1 gtt both eyes	QHS
Paroxetine	20mg	Daily
Norvasc	10mg PO	QD
Simvastatin (Zocor)	40mg PO	QD
Metoprolol Succ.	100mg PO	Daily
Oxybutynin ER	10mg	Daily
Oxycodone	5mg	Q4-6hrs PRN
Zantac	150mg PO	Twice Daily
Albuterol Inhaler	2 puffs	4x/day PRN

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### CASE STUDY: 1

Medication	Dose/route	Anticholinergic score
Digoxin	0.125mg	1
Furosemide	40mg	1
Olanzapine	5mg	3
Carbamazepine	200mg	2
Diphenhydramine	25mg	3
Paroxetine	20mg	3
Metoprolol Succ.	100mg PO	1
Oxybutynin ER	10mg	3
Ranitidine	150mg PO	1

**Total Score: 18**

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### MEDICATION MANAGEMENT- DURATION

How Many Medications are indicated for...

THE REST OF YOUR LIFE?

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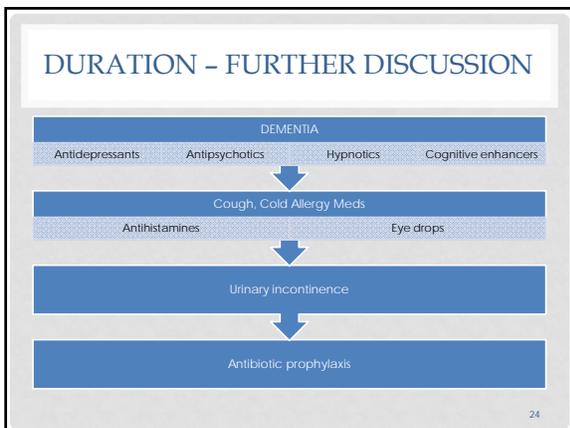
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### AS NEEDED "PRN" ORDERS

Avoid Multiple PRNs- same condition	Lorazepam 0.5mg 1-2 tabs Q4-6hrs PRN anxiety
Avoid Dosing Ranges	Seroquel 25mg-50mg Q4hrs PRN anxiety
	Hydrocodone/APAP 5/325 1-2 tabs Q4-6hrs PRN
	Oxycodone/APAP 5/325 1-2 tabs Q4-6hrs PRN



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### MEDICATION HANDLING

Med Room and Carts	Med Accountability
<ul style="list-style-type: none"><li>• Locked, clean, proper temperature</li><li>• Multi-dose vials dated</li><li>• Refrigerator 36-46 degrees F</li><li>• Internal and External stored separately</li><li>• No open UD packets</li><li>• NO "taped" blister cards</li></ul>	<ul style="list-style-type: none"><li>• Prescribing</li><li>• Preparation/dispensing</li><li>• Procurement/storage</li><li>• Administration</li><li>• Disposal</li></ul>



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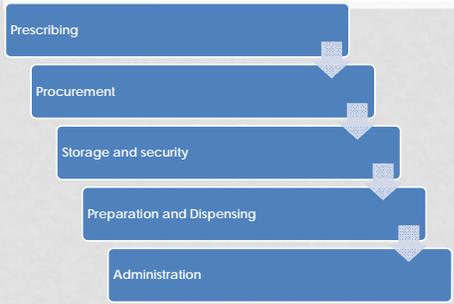
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### MEDICATION ACCOUNTABILITY (BEST PRACTICE SUGGESTIONS)



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graph TD; A[Prescribing] --> B[Procurement]; B --> C[Storage and security]; C --> D[Preparation and Dispensing]; D --> E[Administration];
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IMPROVE MEDICATION MANAGEMENT  
TO REDUCE HOSPITAL READMISSIONS

A CHANGING PARADIGM

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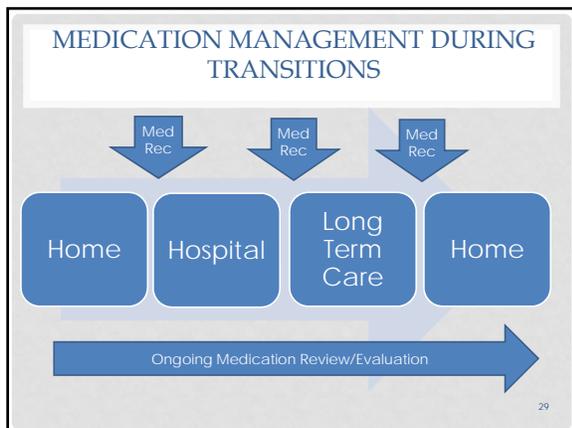
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Changing Paradigm

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Full Circle Care Coordination

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### Thrifty White Care Coordination

Introduction



- Prospective Medication Review
- Pharmacy Consulting Services
- Discharge Medication Coordination
- MTM Services Medication Management

[Thrifty White Care Coordination](#)



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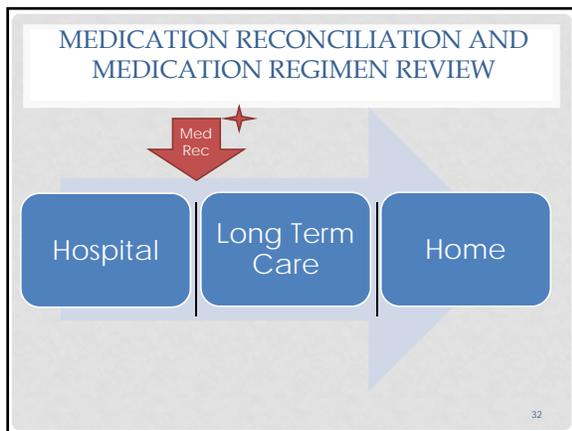
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### Thrifty White Care Coordination

Prospective Medication Review

SNF admission decision - facility sends to pharmacy:

1. Hospital Medication List or interagency transfer form [containing pertinent information of patient's hospital stay]
2. Anticipated admission date/time

Pharmacy evaluates medication orders and notifies facility of medication therapy concerns

Facility communicates with admitting physician or hospitalist the medication therapy concerns identified for follow up action.



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**PROSPECTIVE MEDICATION REVIEW:  
JANE DOE**

Medication	Dose/route	Frequency	Indication
Glyburide	5mg PO	BID	DM
Diphenhydramine	25mg	PRN	
Isosorbide	30mg PO	BID	
Diazepam (Valium)	5mg PO	BID PRN	Anxiety
Lantus	15u SQ	QHS	DM
Xalatan Ophthalmic	1 gtt	QHS	Glaucoma
Celexa	30mg PO	QD	Depression
Norvasc	10mg PO	QD	CV insufficiency
Simvastatin (Zocor)	40mg PO	QD	Hyperlipidemia
Metoprolol	100mg PO	QD	HTN
Hydrocodone/APAP	1-2 tabs PO	Q4-6hrs PRN	Pain
Oxycodone	5-10mg PO	Q4-6hrs PRN	Pain
Zantac	150mg PO	BID	
Combivent	Inhaler	QID PRN	COPD

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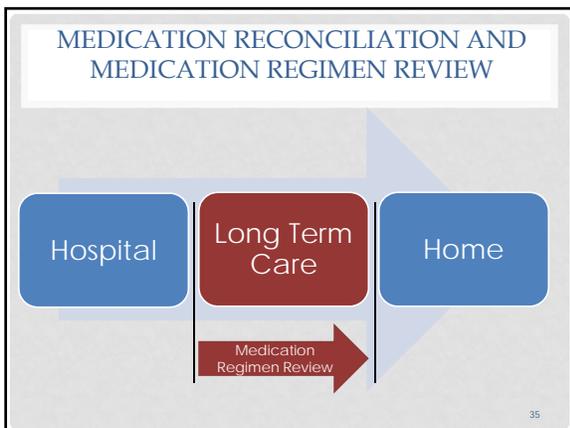
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**Thrifty White Care Coordination**

Consulting

*76% of recommendations made by consultant pharmacists are implemented by prescribers and can affect their future prescribing decisions.*

- Thrifty White Consultant Pharmacists are specialists in "Senior Care" pharmacy
- Services include, but not limited to:
  - Medication Regimen Review of each patient
  - Policy and Procedure review
  - Facility audits
  - Quality Improvement Reports
  - Controlled medication accountability guidance
  - Educational opportunities
  - Review and evaluation of medication errors and adverse drug reactions (upon request)



**100% of facilities would recommend our consulting services to others.** (Results from a 2014 Survey)

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### CONSULTING: MEDICATION REVIEW

- Jane Doe (BD: 5/33; Weight: 125lbs)
  - BP: 100/50
  - Serum Creatinine: 2.1
  - History of falls
  - Confusion
  - Dementia

Can further medication related problems be identified?

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JANE DOE (BD: 5/33; WEIGHT: 125LBS)  
[BP: 100/50; SERUM CREAT: 2.1; HX FALLS, CONFUSION]

Medication	Dose/route	Frequency	Indication
Glyburide	5mg PO	BID	DM
Diphenhydramine	25mg	Q6hrs PRN	Allergy/reaction
Isosorbide mono.	30mg PO	BID	Angina - CAD
Diazepam (Valium)	5mg PO	BID PRN	Anxiety
Lantus	15u SQ	QHS	DM
Xalatan Ophthalmic	1 gtt OU	QHS	Glaucoma
Celexa	30mg PO	QD	Depression
Norvasc	10mg PO	QD	HTN
Atorvastatin (Lipitor)	10mg	QD	Hyperlipidemia
Metoprolol Succinate	100mg PO	QD	HTN
Hydrocodone/APAP	5/325 - 1 tab PO	Q4hrs PRN	Pain
Acetaminophen	650mg PO	Q6hrs PRN	Pain
Zantac	150mg PO	BID	GERD
Spiriva	1 puff	QD	COPD

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### MEDICATION RECONCILIATION AND MEDICATION REGIMEN REVIEW

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### Thrifty White Care Coordination

Discharge Medication Coordination

- Medication reconciliation and patient education at discharge
- Engage patient and family in the overall understanding of medications and the importance of compliance
- Patient satisfaction survey
- Follow up phone calls via Thrifty White Patient Care Center at 72 hours and 3 weeks after discharge

**RESULT: Reduction in hospital readmissions and improved patient satisfaction**




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JANE DOE (BD: 5/33; WEIGHT: 125LBS)  
[BP: 100/50; SERUM CREAT: 2.1; HX FALLS, CONFUSION]

Medication	Dose/route	Frequency	Indication
Glyburide	5mg PO	BID	DM
Zyrtec	10mg	QD PRN	Allergy symptoms
Isosorbide mono.	30mg PO	BID	CAD
Diazepam (Valium)	5mg PO	BID-PRN	Anxiety
Lantus	15u SQ	QHS	DM
Xalatan Ophthalmic	1 gtt OU	QHS	Glaucoma
Celebra	20mg PO	QD	Depression
Norvasc	10mg PO	QD	HTN
Atorvastatin (Lipitor)	10mg	QD	Hyperlipidemia
Metoprolol Succinate	100mg PO	QD	HTN
Hydrocodone/APAP	5/325-1 tab PO	Q4hrs-PRN	Pain
Acetaminophen	650mg PO	Q6hrs PRN	Pain
Zantac	150mg PO	QOD	GERD
Spiriva	1 puff	QD	COPD

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### Thrifty White Care Coordination

PMR- Cost Savings

- PMR Cost Savings for facility: November-March
- 1298 PMRs involving 23351 medications
- 432 resulted in discontinuation or a more cost effective medication

Facility	Count	TOTALS*
Facility ONE	41	\$1,627.81
TWO	116	\$8,611.75
THREE	57	\$4,282.14
FOUR	89	\$6,547.70
FIVE	16	\$1,139.85
SIX	27	\$1,978.06
SEVEN	32	\$3,077.44
EIGHT	37	\$2,138.88
NINE	17	\$830.09
<b>TOTAL</b>	<b>432</b>	<b>\$30,233.72</b>

\*costs are reflected as a 1 time fill

- Average \$69.99/patient/month
- >\$2.25/day




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### Thrifty White Care Coordination

Discharge- Total

Facility	Discharges Initiated	Discharges Taken Place	Discharges Canceled
FACILITY ONE	27	22	5
TWO	40	34	6
THREE	22	17	5
FOUR	20	14	6
FIVE	5	5	0
SIX	68	61	7
SEVEN	34	25	9
EIGHT	30	30	0
NINE	0	0	0
<b>TOTALS</b>	<b>246</b>	<b>208</b>	<b>38</b>




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- ### Thrifty White Care Coordination
- Discharge- Initial Survey
- Did the pharmacy consultation improve your understanding regarding what your medications are for?
    - Yes **86.06%**
    - No 6.25%
    - N/A 7.69%
  - Did the pharmacy consultation improve your understanding regarding how to correctly take your medications?
    - Yes **88.46%**
    - No 6.73%
    - N/A 4.81%
  - Did the pharmacy consultation improve your understanding regarding the importance of taking your medications?
    - Yes **85.10%**
    - No 5.29%
    - N/A 9.62%
  - Was the pharmacy consultation helpful?
    - Yes **87.02%**
    - No 5.77%
    - N/A 7.21%
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- ### Thrifty White Care Coordination
- Discharge follow up
- 72 hour**
    - Did you get ahold of the patient?
      - Yes **84.16%**
      - No 15.84%
  - 3 week**
    - Did you get ahold of the patient?
      - Yes **79.14%**
      - No 20.86%
    - Was the patient readmitted to the hospital?
      - Yes 7.49%
      - No **92.51%**
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### Thrifty White Care Coordination

Drug Therapy Problems

- Of completed Discharge Sessions:
  - 253 Drug Therapy problems Identified
    - 111 - Potential excess dose, duration or duplication of therapy
    - 4 - Absence of monitoring or assessment data
    - 9 - Medication administration problem
    - 121 - Suggest adding medication, increasing dose or alternative medication
    - 6 - Medication need and/or benefit documentation lacking
    - 2 - Other



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### SUMMARY

Sound medication management can reduce overall healthcare expenditures and reduce unnecessary hospital readmissions. Allowing the patient to age in place and thus increasing marketability and attractiveness of facility as a preferred provider and referral center.

- 1 Intervention made by a pharmacist can result in tens of thousands of dollars of savings in total health care expenditure
  - Preventing a COPD exacerbation > \$10,000
  - Preventing a bowel obstruction > \$38,000
  - Preventing a hip fracture > \$40,000

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### SUMMARY

- Readmission prevention strategies are based on common sense... the hard part is creating integration across different healthcare professionals, institutions and organizations.



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**QUESTIONS?**

JOE LITSEY, PHARM.D. C.G.P.  
[JLITSEY@THRIFTYWHITE.COM](mailto:JLITSEY@THRIFTYWHITE.COM)  
612-965-4883

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