Safety Promoting Behaviors: An Innovative and Feasible Method to Determine the Effectiveness of a Pharmacy Benefit Management Program

> M. Paige Powell, PhD University of Alabama at Birmingham Deep South Musculoskeletal CERTs APHA Annual Meeting November 11, 2009

This Evaluation was sponsored by the United Mine Workers of America Health and Retirement Funds. The material in this presentation reflects the results and conclusions of UAB authors and may not necessarily reflect the view of the sponsor.

Presenter Disclosures

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(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

Industry-sponsored Grant: United Mine Workers of America Health and Retirement Funds

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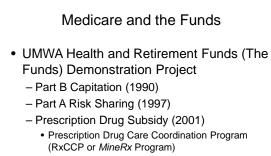
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Evaluation

Prescription Drug Care Coordination Program (RxCCP or *MineRx* Program)

- Purpose:
- "To help physicians caring for Funds beneficiaries advance the quality and effectiveness of drug therapy for frail elderly patients who receive their health care in a fee-for-service environment."





MineRx Program

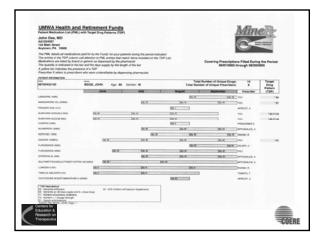
- Physician-centered program
- Educate physicians about high-risk drugs in elderly patients
- Drugs aren't "good" or "bad" but have risks and benefits
- Only the physician can decide on the appropriate treatment.
- Intervention group: physicians in 8 counties in SW PA

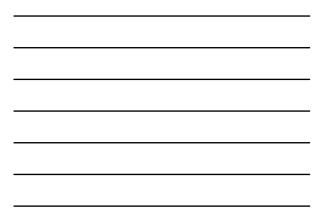
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MineRx Program

- Targeted Drug and Drug Patterns List and Handbook
 - Twenty-six Target Drug and Drug Patterns (e.g., Dementia with warfarin, furosemide > 40 mg, etc)
 - Handbook provides suggestions for doctors on ways to handle each Target Drug and Drug Pattern
 - Change prescription
 - Patient/caregiver education
 - Increase clinical monitoring
 - Patient Medication Lists for each Funds beneficiary in participating practice





Specific Aims

- I. Assess overall program effectiveness
- II. Assess potentially attributable outcomes
- III. Assess program cost effectiveness
- IV. Identify lessons learned and policy implications
- V. Assess implications for Medicare fee-for service Part D



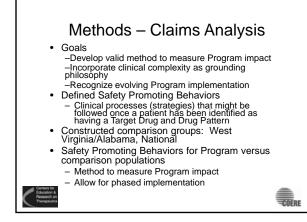


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Evaluation Goal 1

- Assess effectiveness of MineRx Program
 - Increase in Safety Promoting Behaviors (SPB)
 - Changes in prescribing
 - Increased patient education
 - Increased clinical monitoring
 - Identified process measures associated with each Target Drug and Drug Pattern for each Safety Promoting Behavior



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	able 1. Patient Characteristics by Time Period and Study Group Baseline Follow-up					
	Quarter 1, 20	2001 - Quarter 2, 2003		Quarter 3, 2004 - Quarter 4, 2006 Comparison		
	Intervention		arison AL/WVA†	Intervention	National*	AL/WVA [†]
N	8,531	11,610	3,987	9,301	9,919	3,410
Age, mean years	78.6	76 [§]	80§	77.5	75§	78
Female,%	70.1	70.3	74.6§	69.0	70.7§	75.1
Charlson Score, mean [‡]	2.7	3.3 [§]	3.3 [§]	2.5	3.1 [§]	2.9
No. Targeted Drug Pattern Matches	1.8	1.9§	2.3 [§]	3.4	3.1§	3.5
No. Hospital Days	3.1	5.3 [§]	6.0§	8.6	7.7§	8.2

Warfarin Related SPBs								
Table 2. Odds Ratios (95% Confidence Intervals) for Safety Promoting Behaviors (SPBs) Following Warfarin-related Targeted Drug Patterns (TDPs)', 2001 – 2006								
	Warfarin TDP Group [†]		TDP 11					
	Intervention vs. National [‡]	Intervention vs. AL/WVA§	Intervention vs. National [‡]	Intervention vs. AL/WVA§				
Female	0.97 (0.88 - 1.08)	0.89 (0.79 - 1.01)	0.89 (0.79 - 1.01)	0.75 (0.61 - 0.92				
Age	0.99 (0.99 - 1.00)	0.99 (0.99 - 1.00)	0.99 (0.99 - 1.00)	1.00 (0.99 - 1.02				
Charlson Score ^{**} Group (intervention vs.	1.02 (1.00 - 1.04)	1.02 (1.01 - 1.04)	1.02 (1.01 - 1.04)	1.00 (0.96 - 1.03				
comparison)	0.75 (0.67 - 0.84)	0.63 (0.55 - 0.73)	0.63 (0.55 - 0.73)	0.56 (0.45 - 0.7)				
Time (quarters)	0.98 (0.97 - 0.99)	0.97 (0.96 - 0.99)	0.97 (0.96 - 0.99)	0.94 (0.92 - 0.96				
Group-time ^{††}	1.04 (1.01 - 1.06)	1.04 (1.01 - 1.07)	1.04 (1.01 - 1.07)	1.13 (1.07 - 1.18				
Based on generalised estimation equations that accounted for clustering of TDPs within patients. TDPs +11 - 19 "Reandom national sample of 12.000 Funds beneficiaries Funds beneficiaries managed in delivery network similar to intervention "Co-mobility index. (mage 0-15), higher scores indicate greater disease burden "Realities intervention delice; byvalues for all group-line variables were < 0.001.								
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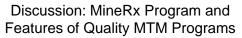
Limitations

- Looked at multiple Target Drug and Drug Patterns, but only found significant results for one
- May have under-indentified Safety Promoting Behaviors, due to the nature of claims data
- Limited by available claims and pharmacy data in the adjustment for patient characteristics, but were able to account for age, sex, and general co-morbidity profile



Conclusions – Claims and Medical Record Analysis

- Program may be having an impact on physician behavior, as indicated by change in warfarin-NSAID Safety Promoting Behaviors
- Many clinical actions contained in the Safety Promoting Behaviors algorithms may be captured from medical record review.
- Early implementation of the *MineRx* Program was associated with improved patient safety with more appropriate management of patients exposed to warfarin and NSAIDs



- Patient-centered approach
- · Interdisciplinary, team-based approach
- Communication
- · Population and individual patient perspective
- · Flexibility for broad application
- Evidence-based medicine
- Promotion of MTM services





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