Effectiveness of Alternative Ways of Implementing Care Coordination Components in Medicare D-SNPs

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MATHEMATICA
Policy Research

Background

- Little is known about *how* best to provide care management services
- Used an orthogonal design to test two alternative ways to implement 10 intervention components
- Study was implemented at Care Wisconsin and Gateway D-SNPs
  - 24 care managers serving 1,562 dual eligibles with disabilities

Methods (1)

- Orthogonal design: randomly assigned care managers to a combination of options
  - For example, 1 = a, 2 = a, 3 = b, … ,10 = b
- Used regression analysis to compare outcomes between members assigned to routine care (a) vs. enhanced care (b)
- Routine and enhanced care differ by
  - How often to provide a service
  - How intensely to provide a service

Methods (2)

- **“No difference” is a valuable finding: more expensive options are no more effective than routine practices**
- **Analyzed fidelity to assigned options by using encounter-level data and conversations with care management staff**

Data and Variables (1)

- Outcomes (claims data)
  - Number of inpatient admissions
  - Number of readmissions
  - Number of ER visits
- Conversations with plan staff
  - Perceptions of effectiveness of tested options
  - Implementation and feedback on study in general

Data and Variables (2)

- Fidelity measures (tracking tool data)
  - Percentage of members who received a given option at least once
  - Percentage of members who received a given option as often as specified in study protocol
  - Number of times each member received a given option

Intervention Components

- **Frequency of routine contacts and medication review (1 component)**
- **Frequency of depression and falls risk screening, and use of instruments in both (4)**
- **Care plan review (1)**
- **Patient coaching and engagement (1)**
- **Care transitions (3)**

Routine Contacts

Component	Options Tested
1 **Frequency of routine contacts and med review**	a) Low-risk members: at least once every 3 months High-risk members: at least once or twice per month Review medication at least once every 3 months b) Low-risk members: at least **once every 2 months** High-risk members: at least **2 or 3 times per month** Review medication at least **once every 2 months**

Differences in Outcomes: Enhanced vs. Routine Care

Change in Outcome	More Frequent Contacts and Medication Review	More Frequent Review of Care Plans	Teachback Method
Number of ER visits	-16%**	Not significant	15%**
Percent readmitted after medical discharge	Not significant	-33%**	Not significant

** Significantly different from zero at the 5 percent level

More Frequent Contacts and Med Reviews Reduced ER Visits

- Requiring more contacts and medication reviews reduced ER visits by 16%
- Number of contacts slightly higher under enhanced care
  - Only 38% of enhanced care group received assigned number of contacts
- But number of med reviews was 38% higher for enhanced care group

More Frequent Care Plan Reviews Associated with Fewer Readmissions

- Requiring care plans to be reviewed more often was associated with fewer readmissions
  - About three-quarters of members were screened
  - But members assigned to quarterly reviews received *fewer* reviews than those assigned to routine care
  - Finding appears to be a statistical anomaly

Teachback Associated with More ER Visits

- Teachback was associated with more ER visits
- Members assigned to teachback might have gotten less coaching overall
  - 39% of members got teachback
  - 75% of members got routine coaching
- Care managers assigned to teachback might have needed more training

Enhanced Care Was No Better Than Routine Care for Several Components (1)

- Falls risk screening three times yearly vs. as needed
- Fall prevention referral letter vs. no letter
- Quarterly depression screening vs. twice yearly
- Use of PHQ-9 vs. PHQ-2 instrument

Enhanced Care Was No Better Than Routine Care for Several Components (2)

- Two follow-ups post-discharge vs. one
- Phone call and letter informing primary care physician (PCP) of discharge vs. letter only
- Use of instrument and checklist during post-discharge follow-up vs. no specific protocol

Staff Found Several Components Helpful Despite Anomalous Results

- Falls risk screening tool: helped to "have a set of questions to ask"
- More frequent depression screening: helped identify and refer more members than before the study
- Teachback method: found helpful
- Post-discharge follow-up checklist: provided much-needed structure

Why No Difference in Measured Outcomes? (1)

- Enhanced care options for several components were implemented less consistently than routine care
- Possible that enhanced care options had favorable impacts on intermediate outcomes
  - Screenings (depression and falls risk)
  - Teachback method

Why No Difference in Measured Outcomes? (2)

- **Power: minimum detectable differences were approximately 22-32% of the mean**
- **Care transitions components are applicable only to those with inpatient admissions (half of the sample)**
  - **Power was even lower**

Study Facilitated Learning & Improvements (1)

- Plan 1
  - Intends to implement PHQ-9 and teachback method
  - Considering training care managers in assessing the risk of falls
  - Developed post-discharge tool similar to the study tool
  - Considering adopting second follow-up

Study Facilitated Learning & Improvements (2)

- **Plan 2**
  - **Benefited from more structure in routine contacts, falls risk screening, and care transitions management**
  - **Intends to train care managers in depression screening and teachback method**
- **Both plans recognized the need to track provision of services**

Orthogonal Design: Final Comments (1)

- Can improve efficiency of care management programs
- Quickly produces rigorous results
  - Allows for comparison of multiple components
  - Tests enhancements to routine practices
  - All subjects receive some intervention

Orthogonal Design: Final Comments (2)

- Needs adequate power to get credible results
- Most important benefit could be encouraging plans to do continuous quality improvement studies
  - Could be incorporated into the Plan Do Study Act (PDSA) framework

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For More Information

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Supplementary Slides

Routine Contacts

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Falls Risk Screening and Prevention Referral

Component	Options Tested
2 Falls risk screening	a) Routine care: screen members as needed b) Use an instrument; screen all members **at months 1, 4, and 7**
3 Falls prevention referral	a) Refer as per routine care b) Refer as per routine care **AND send members a letter**

Depression Screening

Component	Options Tested
4 **Depression screening tools**	a) Use PHQ-2 instrument b) Use **PHQ-9** instrument
5 **Depression screening frequency and referral**	a) Screen at least once every 6 months; refer those who screen positive as per routine care b) Screen **at least once every 3 months**; refer those who screen positive as per routine care **AND send a letter encouraging mental health follow-up to the primary care provider**

PHQ = Patient Health Questionnaire

Care Planning and Member Coaching

Component	Options Tested
6 **Frequency of care plan review**	a) Review care plan as per routine care b) Review care plan **at least once every 3 months**
7 **Method used to coach and educate members**	a) Routine care/clinical judgment b) Use the **teachback method**

Care Transitions

Component		Options Tested
8	**Frequency of contact after discharge**	a) Contact within 3 days post-discharge b) Contact within 3 days post-discharge **AND within 7 days of first follow-up**
9	**Inform PCP of discharge**	a) Inform primary care physician (PCP) of the member's discharge via letter b) Inform PCP of the discharge via letter **AND telephone**
10	**Follow-up after discharge**	a) Routine care b) **Administer CTM-3 instrument and use a structured checklist during follow-up**

CTM = Care Transitions Measure; adopted from Eric Coleman's Care Transitions Intervention (Coleman et al. 2006)