

What is REALLY needed for care coordination for persons with multiple and complex health needs?

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Meet Mrs. S...



83 year old woman
who complains of
fatigue, ↓appetite,
weakness

Mrs. S: Diseases / Conditions (N=10)

- Rheumatoid arthritis
- Prior heart attack
- Diabetes
- Hypertension
- Atrial fibrillation
- Depression
- Osteoporosis
- Chronic kidney disease
- GERD (Reflux)

Mrs. S: Medications (N=14)

- ACEI
- beta blocker
- Diuretic
- statin
- sulfonurea
- metformin
- SSRI
- prednisone
- methotrexate
- Calcium & Vitamin D
- proton pump inhibitor
- warfarin
- aspirin

Mrs. S complains of fatigue, ↓appetite, weakness to her...

- **Cardiologist:** Increases her β -blocker, warfarin, diuretic, statin
- **Endocrinologist:** Starts insulin and bisphosphonate

Disease outcomes: Blood pressure, heart rate; avoid stroke, heart attack, ESRD, fracture, rehospitalization for heart failure

Mrs. S. complains of fatigue, ↓appetite, leg weakness to her...

- **Psychiatrist** –decrease steroids, β-blocker
→add mirtazepine
 - **Disease outcome:** improve depression
- **Gastroenterologist** –stop bisphosphonate,
↓warfarin
 - **Disease outcome:** avoid GI bleed

Mrs. S...



83 year old woman
who now complains
of **fatigue**, **↓appetite**,
weakness, **confusion**
and **frustration**

The problem in care of patients with multiple and complex health needs

- Costly, fragmented care of unclear benefit and potential harm:
 - For patients
 - For providers
 - For the health system and payers

The problem by the numbers

- The 37% (~18,500,000) of Medicare beneficiaries with 4+ chronic conditions, consume 74% of Medicare budget

CMS. Chronic Conditions among Medicare Beneficiaries, 2012.

- All adults: Majority of health care used by those with ≥ 2 conditions

Anderson G (RWJF.org)

The problem for patients like Mrs. S

- See average of 7 physicians (2 primary care and 5 specialists) a year
- Numerous and burdensome treatments:
 - of uncertain benefit and potential harm (30-40% of care unnecessary or harmful)
 - 20% receive medication potentially harmful to coexisting condition

Lorgunpai, PLoS ONE, 2014

Treatment Regimen Based on Clinical Practice Guidelines for a 79-Year-Old Woman With Hypertension, Diabetes Mellitus, Osteoporosis, Osteoarthritis, and COPD*

Table 3. Treatment Regimen Based on Clinical Practice Guidelines for a Hypothetical 79-Year-Old Woman With Hypertension, Diabetes Mellitus, Osteoporosis, Osteoarthritis, and COPD*

Time	Medications†	Other
7:00 AM	Ipratropium metered dose inhaler 70 mg/wk of alendronate	Check feet Sit upright for 30 min on day when alendronate is taken Check blood sugar
8:00 AM	500 mg of calcium and 200 IU of vitamin D 12.5 mg of hydrochlorothiazide 40 mg of lisinopril 10 mg of glyburide 81 mg of aspirin 850 mg of metformin 250 mg of naproxen 20 mg of omeprazole	Eat breakfast 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
12:00 PM		Eat lunch 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
1:00 PM	Ipratropium metered dose inhaler 500 mg of calcium and 200 IU of vitamin D	
7:00 PM	Ipratropium metered dose inhaler 850 mg of metformin 500 mg of calcium and 200 IU of vitamin D 40 mg of lovastatin 250 mg of naproxen	Eat dinner 2.4 g/d of sodium 90 mmol/d of potassium Low intake of dietary saturated fat and cholesterol Adequate intake of magnesium and calcium Medical nutrition therapy for diabetes‡ DASH‡
11:00 PM	Ipratropium metered dose inhaler	
As needed	Albuterol metered dose inhaler	

Abbreviations: ADA, American Diabetes Association; COPD, chronic obstructive pulmonary disease; DASH, Dietary Approaches to Stop Hypertension.

*Clinical practice guidelines used: (1) Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure VII;²⁸ (2) ADA¹⁹⁻³²; glycemic control is recommended; however, specific medicines are not described. (3) American College of Rheumatology³³⁻³⁶; recent evidence about the safety and appropriateness of cyclooxygenase inhibitors, particularly in individuals with comorbid cardiovascular disease, led us to omit them from the list of medication options, although they are discussed in the reviewed clinical practice guidelines. (4) National Osteoporosis Foundation⁴⁰; this regimen assumes dietary intake of 200 IU of vitamin D. (5) National Heart, Lung, and Blood Institute and World Health Organization.^{37,38}

†Taken orally unless otherwise indicated. The medication complexity score of the regimen for this hypothetical woman is 14, with 19 doses of medications per day, assuming 2 as needed doses of albuterol metered dose inhaler plus 70 mg/wk of alendronate.

‡DASH and ADA dietary guidelines may be synthesized, but the help of a registered dietitian is specifically recommended. Eat foods containing carbohydrate from whole grains, fruits, vegetables, and low-fat milk. Avoid protein intake of more than 20% of total daily energy; lower protein intake to about 10% of daily calories if overt nephropathy is present. Limit intake of saturated fat (<10% of total daily energy) and dietary cholesterol (<200-300 mg). Limit intake of transunsaturated fatty acids. Eat 2 to 3 servings of fish per week. Intake of polyunsaturated fat should be about 10% of total daily energy.

Boyd, C. M. et al. JAMA 2005;294:716-724.

The problem for patients like Mrs. S

Care not aligned with their health outcome priorities and goals:

- vary in their health outcome priorities and preferences
- disease-specific outcomes may not measure what matters most to patients

What matters most to older adults with multiple conditions...

- Think in terms of general, not disease-specific outcomes
- Understand the concept of tradeoffs among outcomes
- Agree on set of important health outcomes

Fried TR, Arch Intern Med, 2011; Patient Educ Couns, 2010; J Am Geriatr Soc, 2008

“Universal” health outcomes meaningful to patients



Functional as possible (physical, cognitive, psychological, social)



Free of symptoms/ impairments as possible (e.g. pain, fatigue)



Live as long as possible (survival)

The problem for primary care and specialists

- 1° care practice of 30% Medicare patients with ≥ 4 chronic conditions coordinate with 86 other providers in 36 practices
- Typical 1° care clinician has 229 other clinicians working in 117 practices with which care must be coordinated.

Pham H, Ann Intern Med 2009; 150:236

The problem for primary care and specialists

- **Accountability unclear** (e.g. worse BP control for diabetic patients if co-managed in 1° care and diabetes clinics)
- **Roles unclear** (e.g. 1° care and oncologists had different expectations regarding their respective roles; patients usually agreed with 1° care)

Current solution to fragmentation: Care coordination

- Frame care coordination as problem of information and knowledge flow
 - Reengineer workflow to improve coordination across providers and between providers and patients
 - Focus on care coordination “failures” - care transitions; readmissions

Solutions to improve information and knowledge flow

- Interpose “knowledgeable” intermediary (navigator; coach; case managers, etc.)
- Health IT to exchange information
- Structural coordination (e.g. PCMH-N,ACOs)
- Financial incentives (e.g. PCMH, care transition, care coordination payments)
- Financial penalties (e.g. 30 day readmissions)

Information and knowledge structural, financial “fixes”

- Necessary but not sufficient: “coordinate business as usual”
- Care of complex patients requires coordination across conditions as well
- Otherwise, replace fragmentation based on settings with fragmentation based on condition

The Solution: The rest of care coordination

Realign care of older adults with multiple
and complex health needs from:

- independent, disease-centered,
clinician-driven care to...
- primary-specialty integrated care driven
by what matters most to patients
(health outcome priorities and goals)

What clinicians think



1^o MDs said they need to care for older patients with multiple conditions

- Data on harms and benefits of common treatments
- Approaches to incorporating patient priorities /goals
- Guidelines and quality measures appropriate for patients with multiple conditions
- Altered reimbursement system

Fried T, Arch Intern Med. 2011;171:75-80

What is needed to move from...

Disease-focus...to...



Primary-specialty
integrated person-
focus



What is needed to move from disease-focus to person focus

- Clinical care (e.g. CaRe-Align)
- Payment/ reimbursement
- EHR documentation
- Quality measures

Move from disease-focus to person focus: Clinical care (CaRe-Align)

- Ascertain patient's health outcome priorities and goals (what matters most)
- Shared decision-making (across providers and between providers and patients informed by priorities and goals)
- Integrate 'medical' and 'social' care

Move from disease-focus to person focus: Clinical care (CaRe-Align)

- Shared/integrated care plans across settings and providers guided by patient priorities and goals
- Need to make shared care plans feasible
 - Financial, quality measures incentives
 - Workflow redesign (make it easier to do the right thing)

Move from disease-focus to person focus: Clinical care requires

- Support from
 - payment
 - EHR
 - quality measures

Move from disease-focus to person focus: Payment

- **Current fee-for-service:** 70,000 codes (ICD10)
 - Don't include what matters most (function; goals)
 - Reinforce utilization driven care
 - A move in the wrong direction
- **What needed:** Value-based payments based on integrated care; meeting patient outcome goals

Move from disease-focus to person focus: EHR

- What matters most to patients NOT IN EHR
 - Function (e.g. daily activities; mobility)
 - Patient goals (in text occasionally; not easily retrieved)
- For meaningful use to be meaningful:
 - function, symptoms (other patient-reported outcomes)
 - Patient goals, shared care plans

Move from disease-focus to person focus: Quality measures

- Replace plethora of disease quality metrics with...
- Patient metrics (e.g. ascertain and meet goals, shared decision-making, function, symptoms, shared care plans)
- Measure what matters; what want to happen
- Beginning (e.g. NCQA, ACP) but...
- Data needs to be in EHR

Needed for care coordination for persons with multiple and complex health needs

The problem: many providers, many diagnoses, many treatments, variable goals

The solution:

- Move from disease to person focus in:
 - Patient outcome goals drive care
 - Primary-specialty work from same care plan
- Structural coordination, EHR, quality measures, payment all reinforce