

Models of long term care

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Today

- Comparison of models
 - Preventive care model
 - Chronic care model
 - Guided care model
 - Patient-centered care model
- Debate: strength and weaknesses

Preventive care model

Characteristics

- Preventive: before outcomes
- Home visits or office based
- Physician or nurse in charge
- Population-wide or specific groups

Preventive care model: RCT

ISCOPE:

To assess the effects and costs of

- 1) a simple monitoring system to detect complex problems of patients aged 75-plus enlisted in general practice

- 2) development and execution of a care plan for those with complex problems in monitoring
 - Using a functional – vertical approach
 - Involving the older person, informal caregiver and other caregivers

Preventive care model: results

	Difference in change follow up between intervention (n=225) en controls (n=1019)	P-value
GARS	-0.6 (-1.7; 0.5)	0.307
EQ-5D	0.03 (-0.01; 0.07)	0.182
DJG	-0.2 (-0.5; 0.1)	0.188
GDS	0.1 (-0.4; 0.5)	0.699
MMSE	-1.7 (-6.5; 3.1)	0.494

Preventive care model: evaluation

Strengths

- Decrease in the occurrence of disease
- Proven increase of functional autonomy and survival
- Reduce costs in frail and non-frail populations
- Evidence-based
- Multidisciplinary

Weaknesses

- Limited to older population
- High individual cost
- Collateral increase of other disease
- Difficult to translate to actual practice
- Limited by time
- Usually focused on one disease and when focused on several less effective

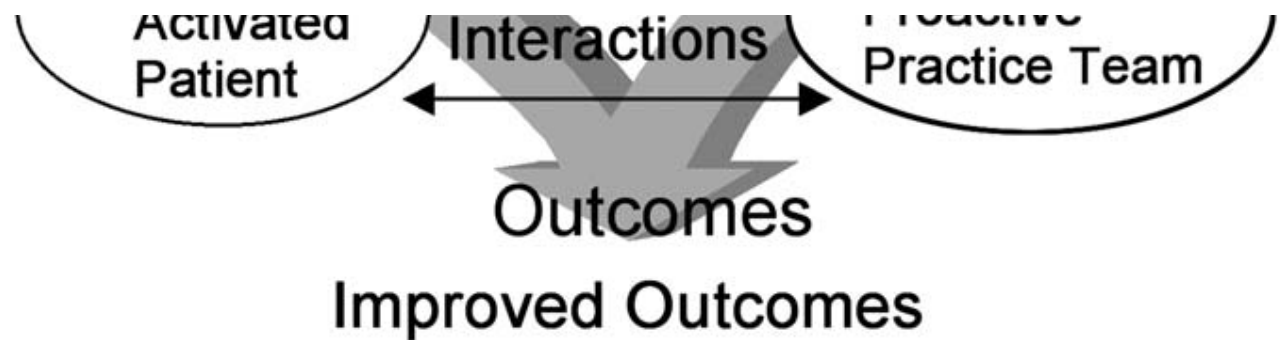


FIG. 1. Chronic care model. Our premise is that good outcomes at the bottom of the model (clinical, satisfaction, cost, etc.) result from productive interactions. To have productive interactions, the system needs to have developed four areas at the practice (shown in the middle): self-management support (how we help patients live with their conditions), delivery system design (who's on the health care team and in what ways we interact with patients), decision support (what is the best care and how to make it happen every time), and clinical information systems (how do we capture and use critical information for clinical care). These four aspects of care reside in a health care system, and some aspects of the greater organization influence clinical care. The health care system itself exists in a larger community. Resources and policies in the community also influence the kind of care that can be provided. It is not accidental that self-management support is on the edge between the health system and the community. Some patient self-management support patients exist in the community. It is also not accidental that it is on the same side of the model as the patient. The most visible part of care to the patient, followed by the delivery system design. They know what kind of appointments they get and when to see. They may be unaware of the guidelines that describe best care, and we should work to change that, and they may be unaware of how we keep information to provide that care.

Chronic care model: RCT

preventable. Each project aimed to achieve a 50% reduction in preventable admissions over two years, thereby improving outcomes within existing resources.

Outcome measures

The SF-36,¹⁰ which measures quality of life on eight domains, was administered to intervention and control patients by post at enrolment, 12 months, and the end of the trial. The rating for problems and goals by patient and service coordinator was used as an outcome measure with intervention patients. Ratings were made monthly, then every three months. Costs and data for medical services, drugs, inpatient admissions, metropolitan domiciliary services, and district nursing services were tracked. Hospital data on outpatients and emergency presentations were not available. Qualitative data included surveys, focus groups, and interviews.

Results

Project specific outcomes have been described elsewhere.¹¹⁻¹⁶ Overall, 3115 intervention patients, 1488 control patients, and 287 intervention group general practitioners were recruited (table 1).

BMJ VOLUME 330 19 MARCH 2005 bmj.com

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Chronic care model

Characteristics

- Comprehensive assessment
- Evidence based planning and monitoring
- Active engagement
- Coordination of professional
- Informed activated patient
- Proactive professional team

Primary outcomes

- Increased QoL
- Increased quality of care
- Increased functional autonomy
- Increased survival
- Decreased costs
- Smoothing transitions

Chronic care model: evaluation

Strengths

- Patient-centered
- Community and health care involved
- High patient satisfaction

Weaknesses

- Suitable for young patients capable of self-management
- Hard to implement (broad intervention)
- Might limit patient choice (comprehensive)
- Initial investment high – higher threshold to start

Guided care

Characteristics

- Evidence-based
- Pro-active
- Continuous
- Adapted to individual patients
- Accessible

Guided care: RCT

RESULTS

As described in detail previously,⁵ 13,534 older patients were screened for eligibility, 1763 were offered the option of participating, and 904 were randomized by pod to receive either GC (n = 485) or UC (n = 419). We excluded from these analyses utilization by participants whose insurance claims were unavailable (1.4%) and those who rescinded consent (1.8%), died before their start dates (2.2%), or did not have start dates before June 30, 2007 (2.2%). We analyzed data on the remaining 835 participants (n = 433 in the GC group, n = 402 in the UC group).

At baseline, the demographic features, comorbidity, and HCC risk scores of the 2 groups were similar, but the GC participants were less likely to experience economic challenge (10.4% vs 15.5% lacked “enough money at the end of the month”; $P = .05$) or functional impairment (21.7% vs 28.3%

ity care, emergency care, and home healthcare, but more specialist care, durable medical equipment, tests, and treatments. Of the GC and UC patients, respectively, a relatively smaller percentage used hospital (26% vs 30%), home health (12% vs 22%), and skilled nursing facility (8% vs 9%) services.

Based on these preliminary estimates, **Table 2** compares the financial savings and costs associated with providing Guided Care to 55 high-risk patients for a year. Guided Care produced net savings of \$75,000 (95% confidence interval: $-\$24,000$ to $\$150,900$), two-thirds of which accrued from reduced hospital utilization.

DISCUSSION

Guided Care is a model of comprehensive care designed for older adults with chronic conditions that addresses

Guided care: RCT

“Medium to high” quality of care reported at baseline

Goal setting	193	3.59	3.22	0.26	-0.03, 0.55
Coordination	191	3.60	3.20	0.42	0.10, 0.74
Decision support	433	3.85	3.74	0.11	-0.06, 0.29
Problem solving	294	3.66	3.38	0.14	-0.10, 0.38
Patient activation	243	3.64	3.25	0.26	-0.03, 0.56
Aggregate quality	205	3.68	3.40	0.25	0.03, 0.48

^a β = beta coefficients from linear regression models adjusted for participants' baseline socio-demographic characteristics, i.e., age, race, sex, education level, financial status, habitation status, HCC score, functional ability (i.e., SF-36 physical component summary and mental component summary), subscale-specific baseline PACIC score, satisfaction with health care, and practice site

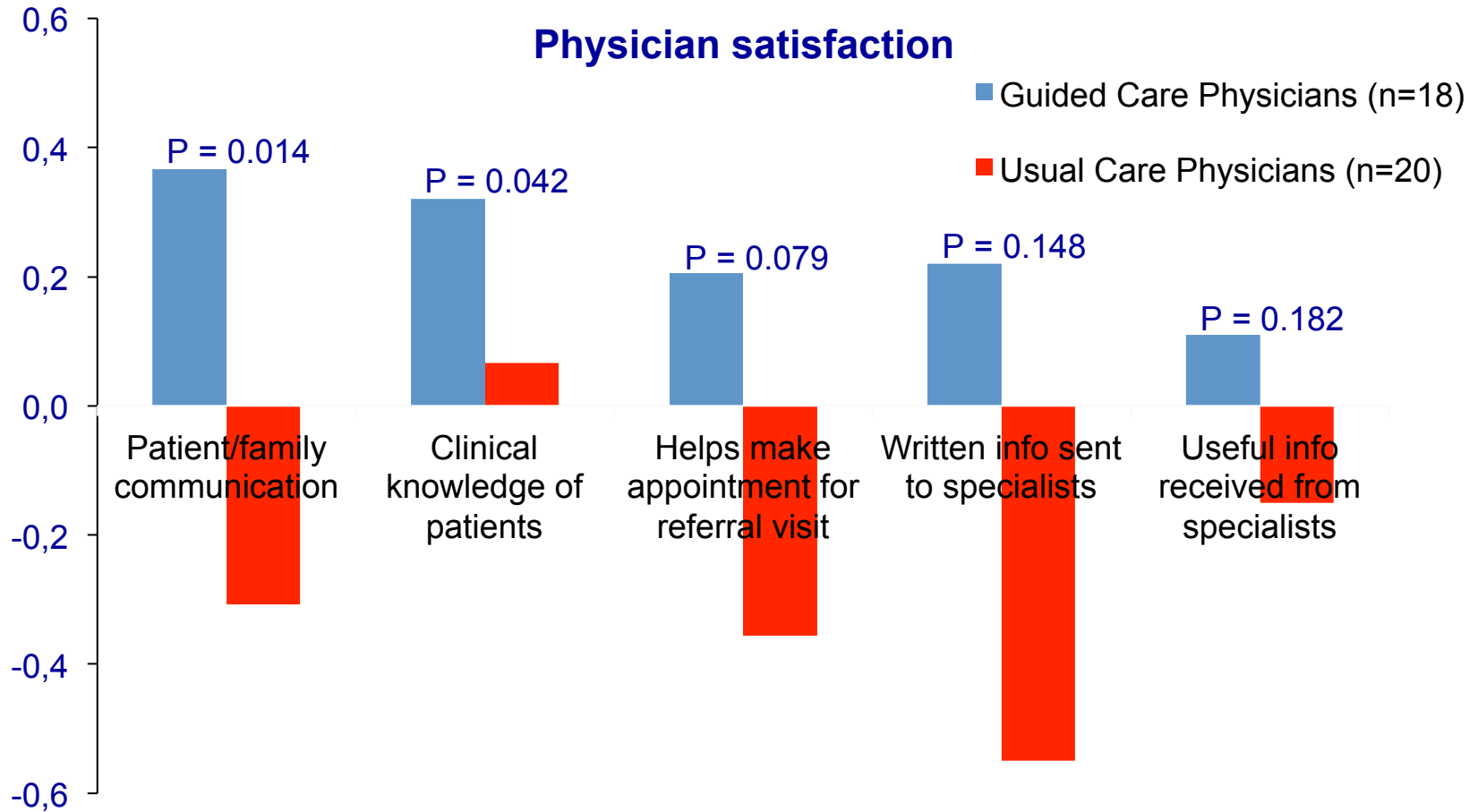
PACIC = Patient Assessment of Chronic Illness Care

CI = Confidence interval

HCC = hierarchical condition category, 1 = average risk of high future health-care costs

SF-36 = Short-Form 36, range = 0 (poor function) to 100 (excellent function)

Guided care: RCT



Guided care: evaluation

Strengths

- Financial sustainable
- Reduction of caregiver burden/stress
- Decreased use of home health care
- Increased satisfaction
- Interdisciplinary
- Increased quality of care
- Financial costs stable

Weaknesses

- Financial reimbursement
- Limited to the US system?
- No improvement in functional health
- No significant reduction in costs
- No significant reduction in use of other care

Patient-centered care

Characteristics

- Leadership
- Quality improvement strategy
- Empanelment (risk suitability)
- Care teams
- Plan care
- Care based on patient's wishes and evidence based
- Involvement of patient
- Increase accessibility
- Coordinate care

Patient-centered care: RCT

- U-Profit
 1. **U-PRIM**, a frailty screening intervention based on risk selection in routine primary care data
 2. **U-PRIM followed by U-CARE**, a nurse-led personalized care program

Patient-centered care

Strengths

- Some care use decreased
- Evidence based medicine
- Patients, nurse, GP, caregiver satisfaction increase
- Nursing admission, ER, out of office visit decreased

Weaknesses

- Hard to implement
- Other outcomes not significant
- Overall care use not reduced
- No financial benefit
- No QoL, ADL benefit

2. Debate

- Which elements of different care models can or should be combined?

Taken into account

- Identified weaknesses
- The population addressed

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