GRACE Team Care

A New Model of Integrated Medical and Social Care for Older Persons

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Background

- Older persons with multiple chronic illnesses and geriatric conditions:
  - Often do not receive recommended standards of care
  - Account for a disproportionate share of expenditures
- New models of care are needed that:
  - Improve quality without increasing costs
  - Optimize the roles of primary care and geriatrics healthcare professionals
  - Integrate Medical and Social Care

Institute of Medicine (IOM). *Retooling for an Aging America.* Washington, DC: The National Academies Press; 2008.

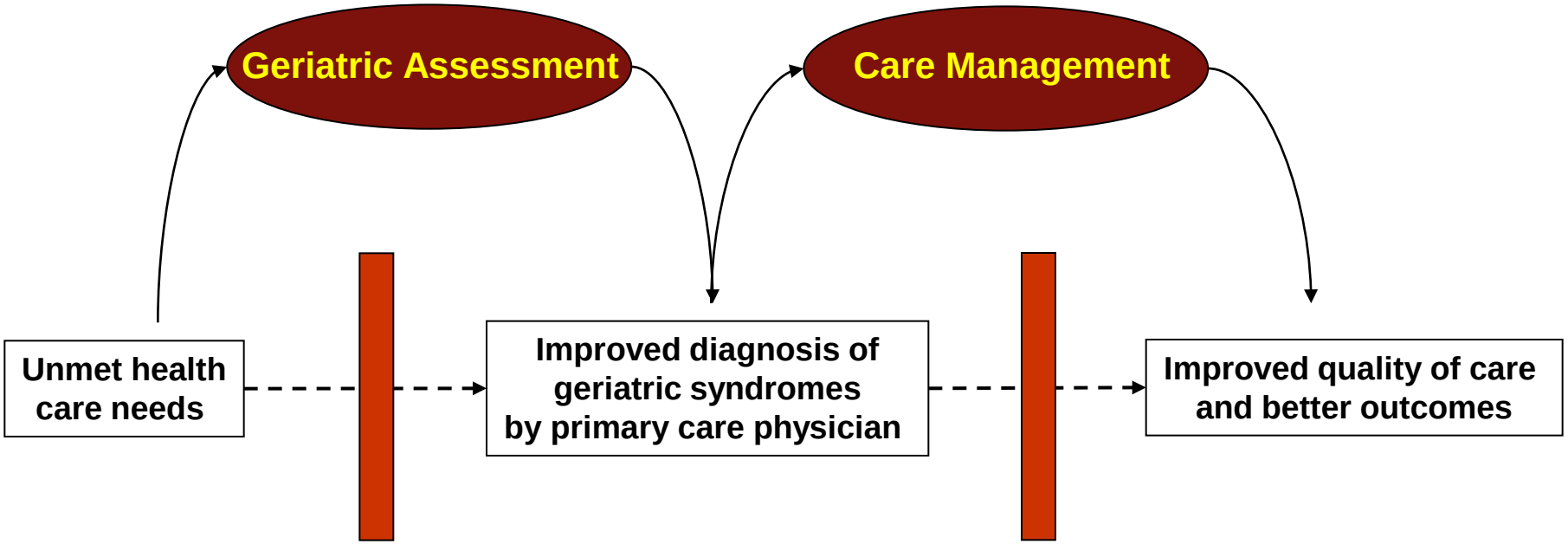
Background

- PCPs have limited time and resources to provide comprehensive care to older patients

⇒ **GRACE**

Geriatric
Resources for
Assessment and
Care of
Elders

GRACE Intervention



Barriers
- System
- Providers
- Patient

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Unique Features of GRACE

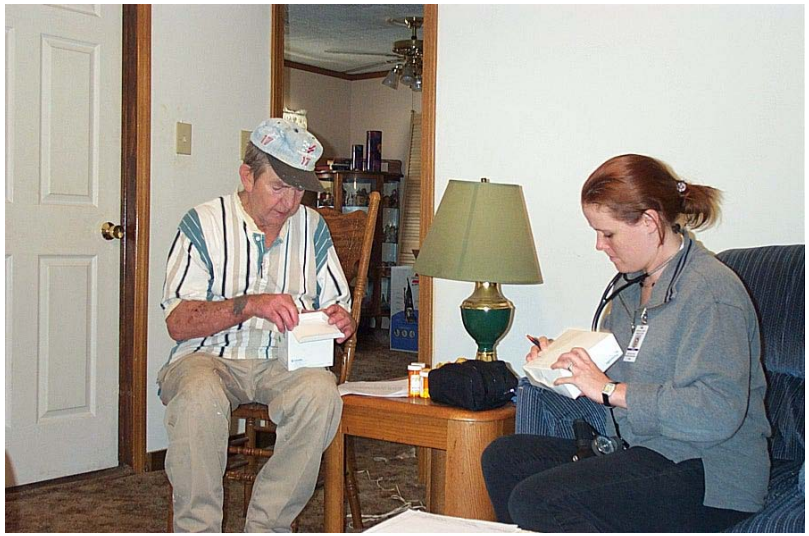
Geriatric Resources for Assessment and Care of Elders

- In-home assessment and care management by NP/SW team in collaboration with the primary care physician
- Extensive use of specific care protocols for evaluation and management of common geriatric conditions
- Documentation in an integrated EMR
- Use of a Web-based care management tracking tool
- Integration with affiliated pharmacy, mental health, hospital, home health, and community-based services

Counsell SR, et al. J Am Geriatr Soc 2006;54:1136-1141.

GRACE Model

- In-home comprehensive geriatric assessment by a geriatrics nurse practitioner and social worker



GRACE Model

- GRACE interdisciplinary team conference
  - Geriatrician
  - Pharmacist
  - Physical Therapist
  - Mental Health Case Manager
  - Community Resource Expert
- Care plan development using GRACE protocols for target conditions

GRACE Model

- NP and SW meet with PCP
- Implement care plan consistent with the patient's goals
- Provide ongoing care management
- Ensure continuity and coordination of care

GRACE Transitional Care

- Communicate baseline status and care plan
- Collaborate in planning transition
- Deliver transitional care including home visit
  - Proactive support of patient and family/caregiver
  - Reconcile medications and provide new medication list
  - Ensure post-discharge arrangements implemented
  - Inform PCP and schedule follow-up visit
- Review in GRACE team conference

GRACE Protocols for Targeted Conditions

1) Difficulty Walking/Falls
2) Urinary Incontinence
3) Malnutrition/Weight Loss
4) Visual Impairment
5) Hearing Loss
6) Medication Management
7) Memory Loss
8) Depression
9) Chronic Pain
10) Health Maintenance
11) Advance Planning
12) Caregiver Burden

GRACE Intervention

Difficulty Walking / Falls

PCP Review

- Confirm diagnosis and update EMR
- Evaluate and treat causes of falls
- Order lab evaluation
- Optimize pain management
- Consult physical therapy

Routine Team

- Monitor orthostatic vital signs
- Increase fluid intake
- Prescribe walking program
- Provide patient education on falls prevention

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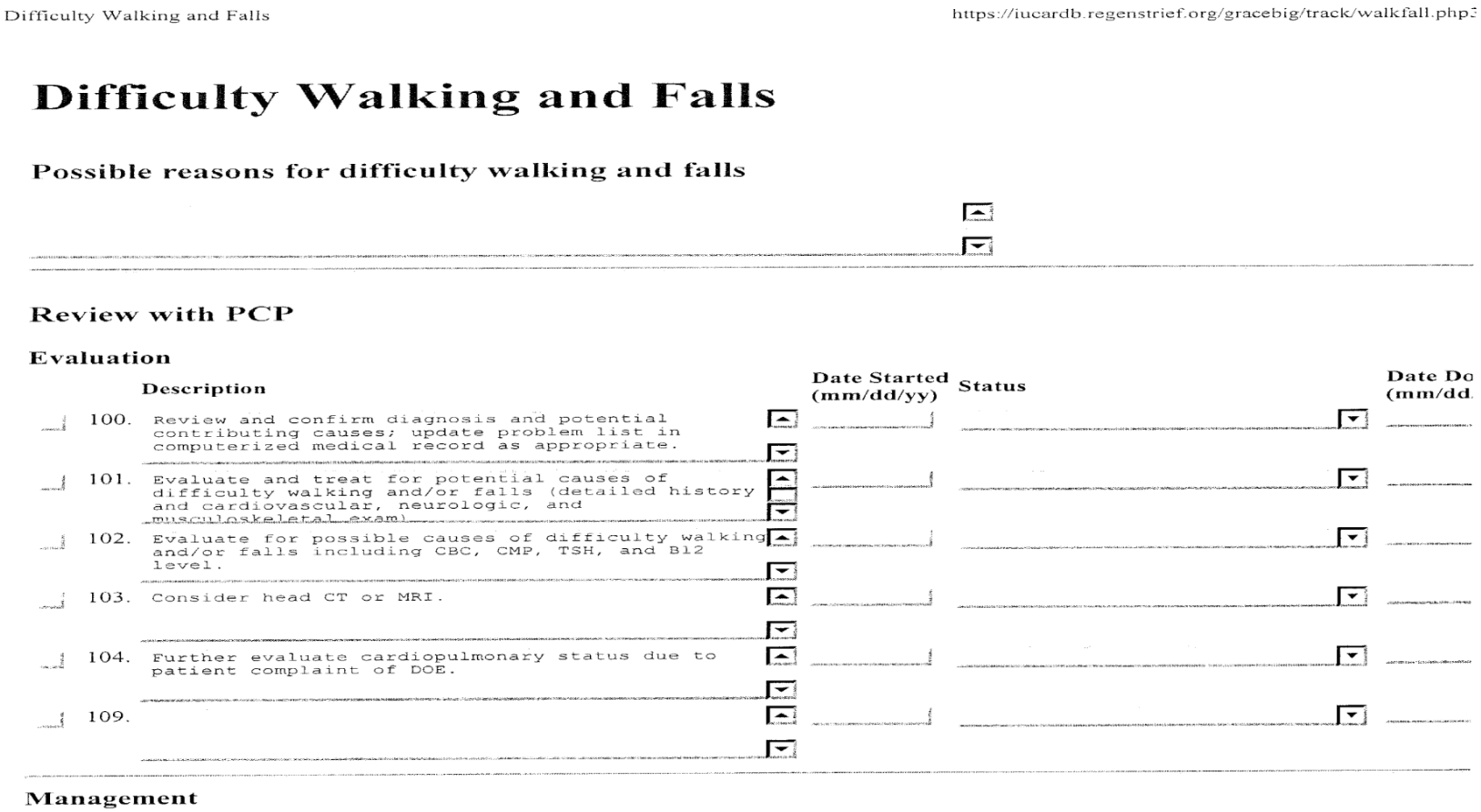
GRACE Web-Based Tracking Tool



Difficulty Walking and Falls https://iucardb.regenstrief.org/gracebig/track/walkfall.php3

Difficulty Walking and Falls

Possible reasons for difficulty walking and falls

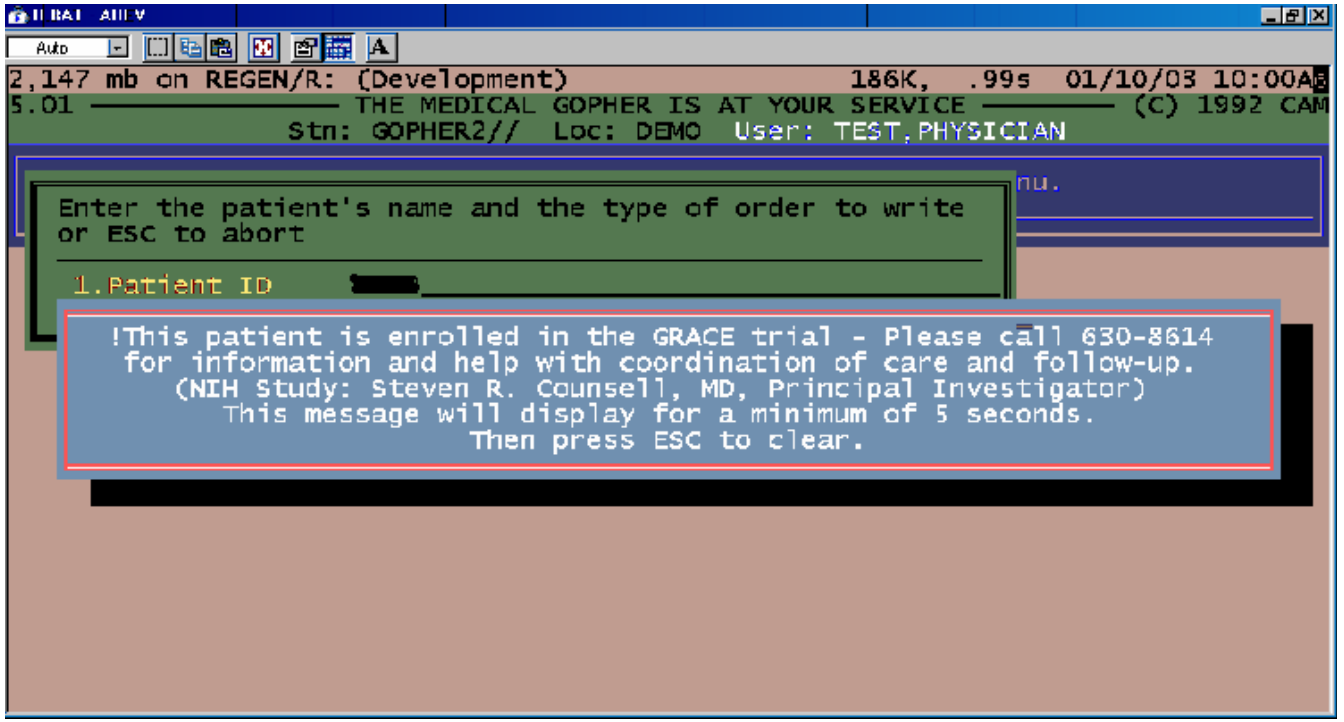
Review with PCP

Evaluation

	Description	Date Started (mm/dd/yy)	Status	Date Do (mm/dd
100.	Review and confirm diagnosis and potential contributing causes; update problem list in computerized medical record as appropriate.			
101.	Evaluate and treat for potential causes of difficulty walking and/or falls (detailed history and cardiovascular, neurologic, and musculoskeletal exam)			
102.	Evaluate for possible causes of difficulty walking and/or falls including CBC, CMP, TSH, and B12 level.			
103.	Consider head CT or MRI.			
104.	Further evaluate cardiopulmonary status due to patient complaint of DOE.			
109.				

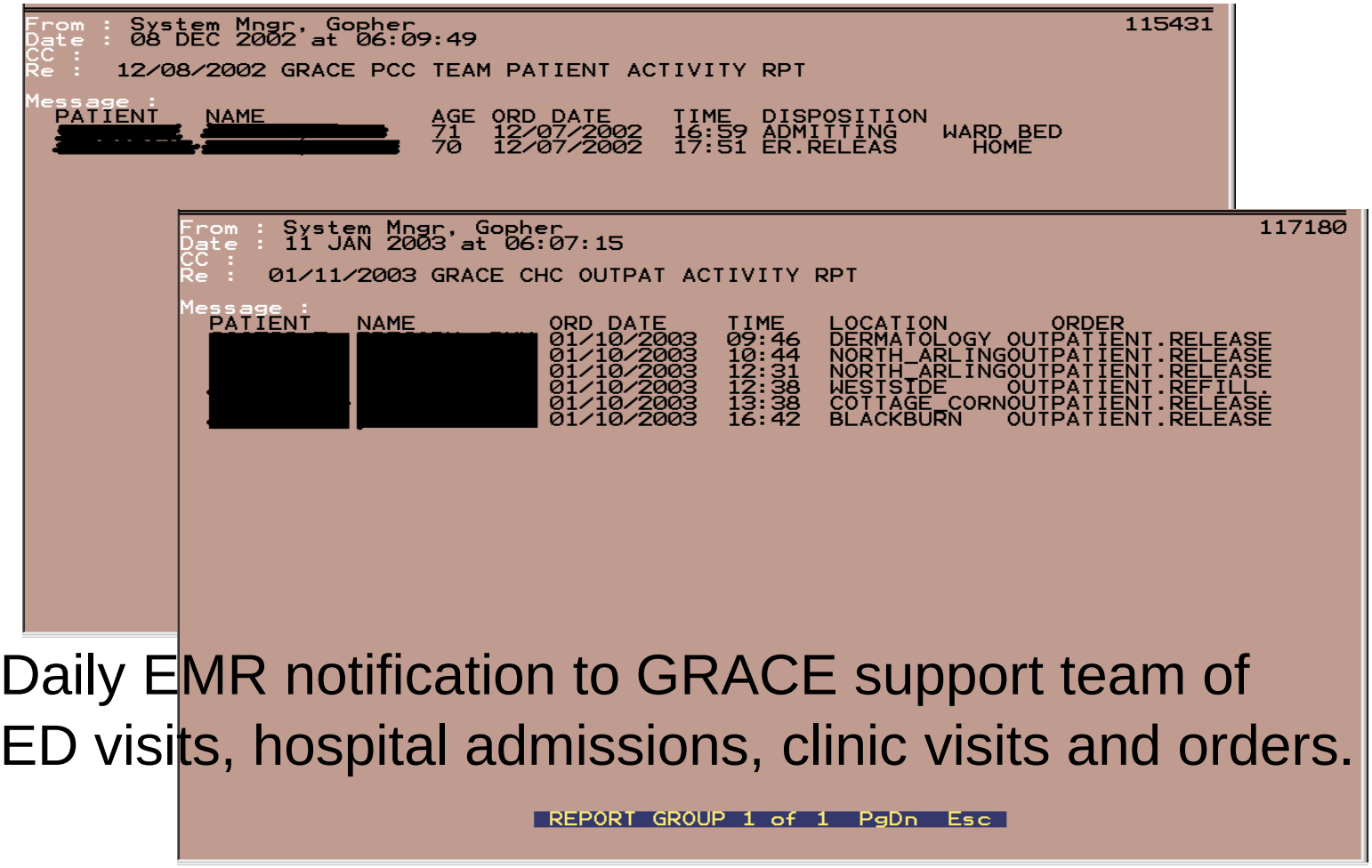
Management

GRACE Intervention



Message to physician at time of hospital admit and discharge, ED visit, clinic visit and orders.

GRACE Intervention



From : System Mngr, Gopher 115431
Date : 08 DEC 2002 at 06:09:49
CC :
Re : 12/08/2002 GRACE PCC TEAM PATIENT ACTIVITY RPT

Message :

PATIENT	NAME	AGE	ORD DATE	TIME	DISPOSITION	WARD BED
[redacted]	[redacted]	71	12/07/2002	16:59	ADMITTING	HOME
[redacted]	[redacted]	70	12/07/2002	17:51	ER.RELEAS	

From : System Mngr, Gopher 117180
Date : 11 JAN 2003 at 06:07:15
CC :
Re : 01/11/2003 GRACE CHC OUTPAT ACTIVITY RPT

Message :

PATIENT	NAME	ORD DATE	TIME	LOCATION	ORDER
[redacted]	[redacted]	01/10/2003	09:46	DERMATOLOGY	OUTPATIENT.RELEASE
		01/10/2003	10:44	NORTH_ARLING	OUTPATIENT.RELEASE
		01/10/2003	12:31	NORTH_ARLING	OUTPATIENT.RELEASE
		01/10/2003	12:38	WESTSIDE	OUTPATIENT.REFILL.
		01/10/2003	13:38	COTTAGE_COR	OUTPATIENT.RELEASE
		01/10/2003	16:42	BLACKBURN	OUTPATIENT.RELEASE

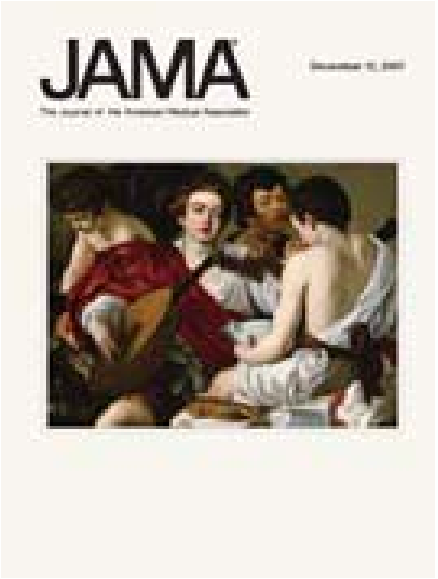
REPORT GROUP 1 of 1 PgDn Esc

Daily EMR notification to GRACE support team of ED visits, hospital admissions, clinic visits and orders.

GRACE Trial

- Randomized controlled clinical trial
- 951 established patients 65 or older
- Annual income ≤200% Federal Poverty Level
- 6 community-based health centers
- University affiliated urban public healthcare system, Wishard Health Services
- Intervention provided for 2 years

JAMA®
The Journal of the American Medical Association



Vol. 298 No. 22, pp. 2587-2700, December 12, 2007

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Patient Characteristics

Variable	GRACE	Usual Care
Age	72	72
Female	76%	77%
African American	58%	62%
Education <12 years	63%	60%
Income <$10,000	73%	72%
County Medical Assistance*	84%	89%
Medicaid Recipient	37%	34%
Perceived Health (fair/poor)	53%	51%

*P<.05

Patient Characteristics

Variable	GRACE	Usual Care
Hypertension	81%	82%
Angina or CAD	13%	11%
Congestive Heart Failure	13%	14%
Heart Attack	17%	16%
Stroke	18%	14%
Chronic Lung Disease	24%	23%
Arthritis of Hip or Knee	55%	52%
Diabetes Mellitus	34%	35%

Patient Characteristics

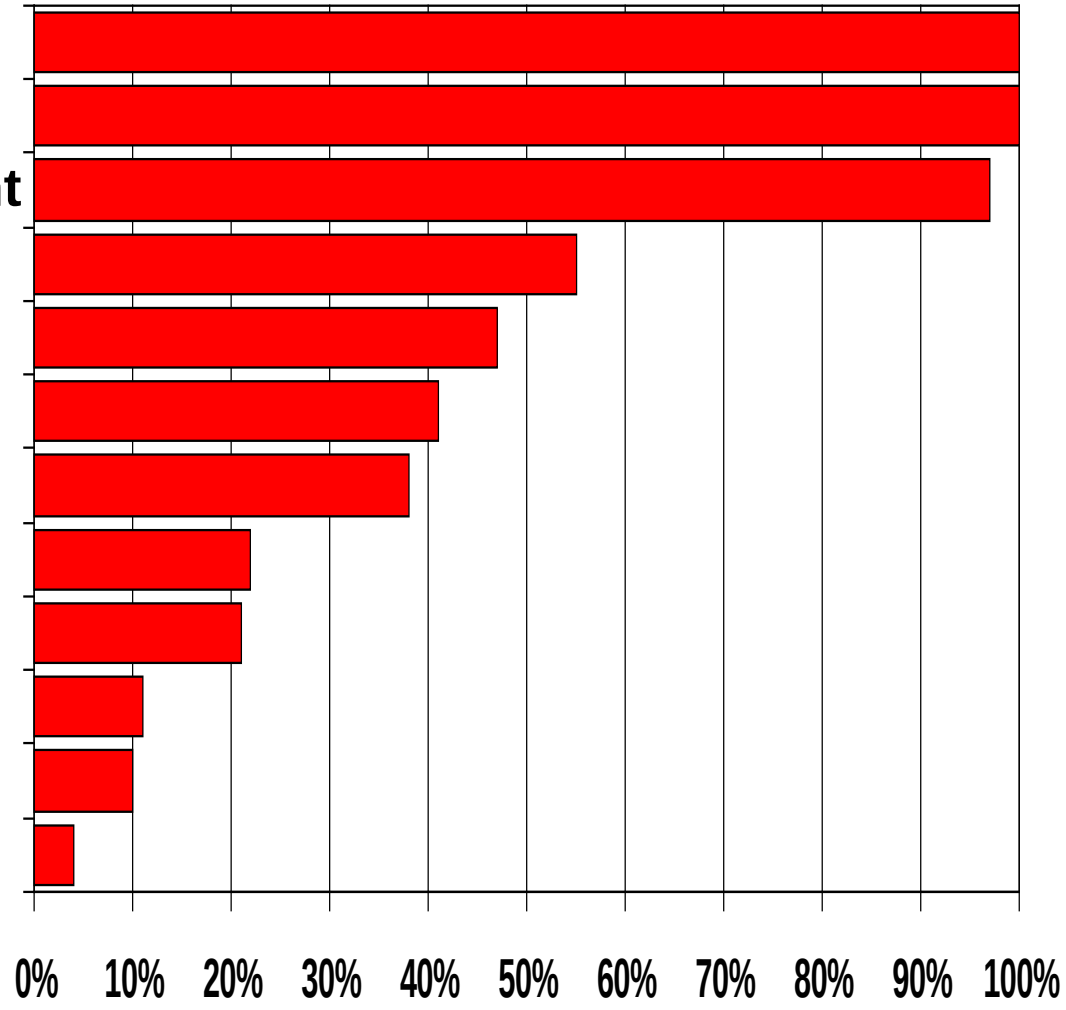
Variable	GRACE	Usual Care
Difficulty Walking 1 Block	38%	36%
Fall in Past 6 Months	22%	22%
Urinary Incontinence	32%	28%
Depressed or Sad	26%	25%
Vision Problems	13%	12%
Hearing Difficulty	46%	42%
Independent in IADL	64%	62%
Independent in BADL	83%	87%

Process of Care

Key Component of Intervention	Implementation
GRACE Protocols per Patient	5 (2-10)
Team Suggestions per Patient	63 (33-131)
Adherence after 12 Months	81%
Patient Contacts	18 (1-65)
Face-to-Face	39%
Contacts for Coordination of Care	8 (0-68)

GRACE Protocols

- Advance Care Planning
- Health Maintenance
- Medication Management
- Difficulty Walking / Falls
- Chronic Pain
- Urinary Incontinence
- Depression
- Vision Loss
- Hearing Loss
- Malnutrition/Wt Loss
- Dementia
- Caregiver Burden

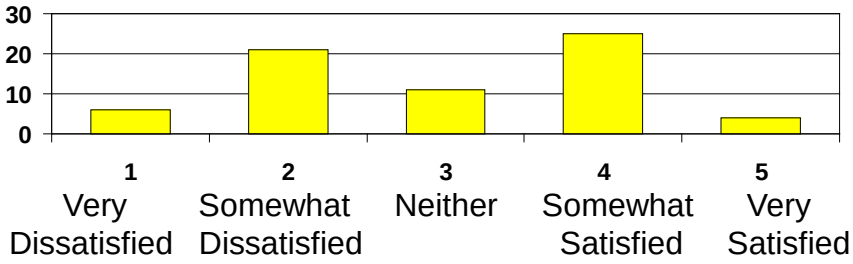


IU Geriatrics

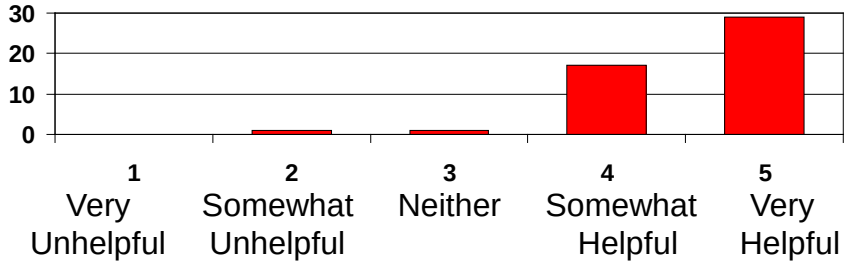
Physician Satisfaction

Mailed Survey: 85% Response Rate
(21 of 21 Faculty and 46 of 58 Residents)

➢**Satisfaction with resources <u>without</u> GRACE to treat elderly patients.**



➢**How <u>helpful</u> was the GRACE program in providing care?**



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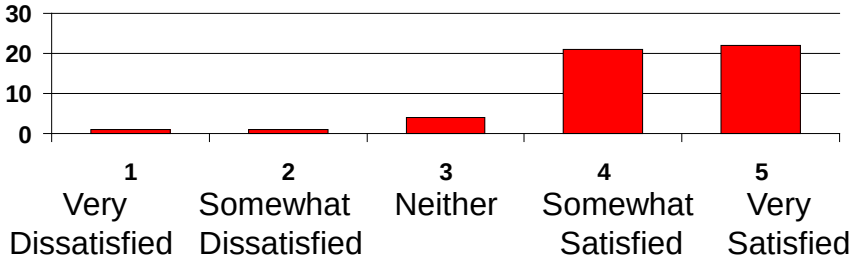
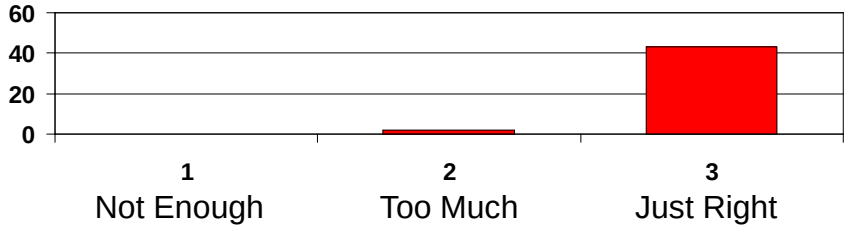


➢**The <u>amount of care</u> provided by the GRACE Support Team was…?**



GRACE Trial – Quality and Outcomes

- Better performance on ACOVE Quality Indicators
  - General health care (e.g., immunizations, continuity)
  - Geriatric conditions (e.g., falls, depression)
- Enhanced quality of life by SF-36 Scales
  - General Health, Vitality, Social Function & Mental Health
  - Mental Component Summary

Counsell SR, et al. JAMA 2007;298(22):2623-2633.

GRACE Trial – Resource Use and Costs

GRACE Intervention in High Risk Patients

- Fewer ED visits
- Decreased hospital admissions
- Lower readmission rates
- Reduced hospital costs offset program costs
- Potential for cost savings

Counsell SR, et al. J Am Geriatr Soc 2009;57:1420-1426.

Probability of Repeated Admissions (PRA)

(PRA Score ≥ 0.4 at High Risk of Hospitalization)

- Age
- Gender
- Perceived health
- Availability of informal caregiver
- Heart disease
- Diabetes
- Physician visits
- Hospitalizations

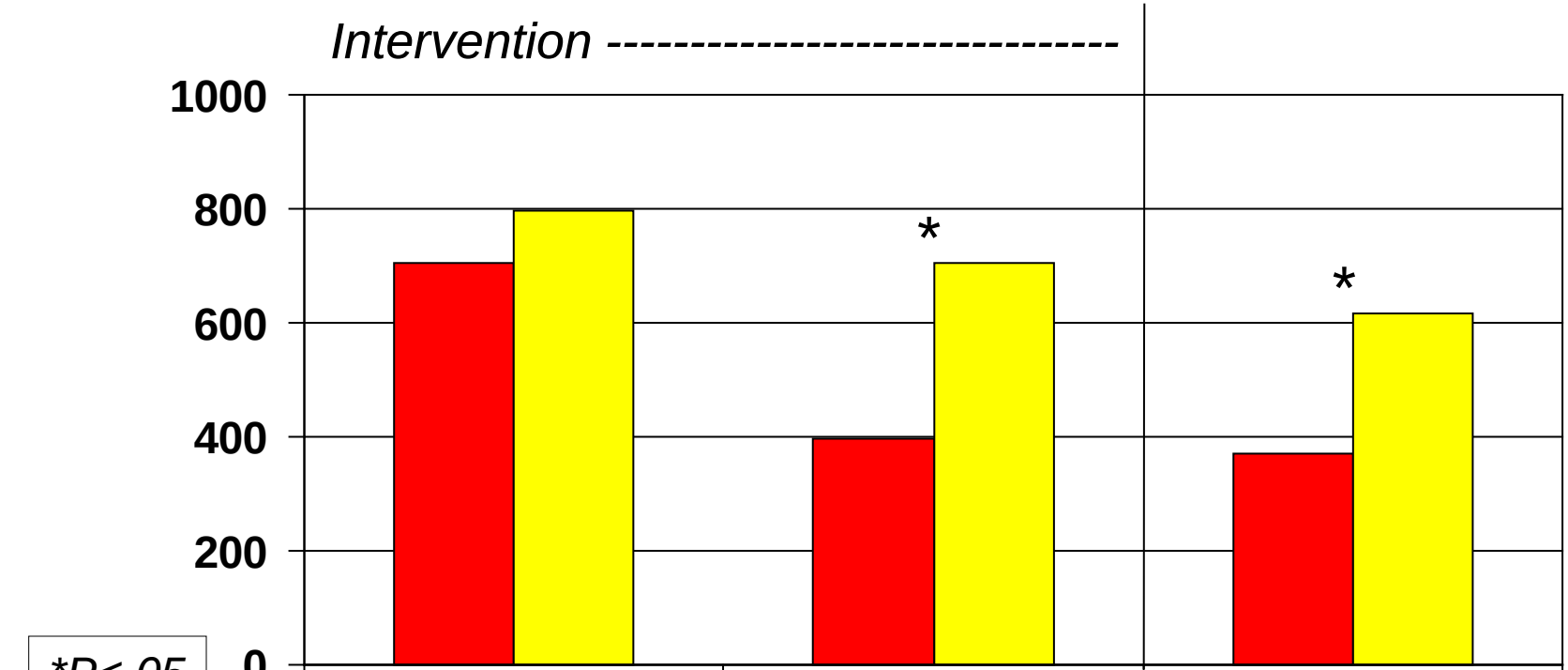
Pacala JT, et al. J Am Geriatr Soc. 1995;43:374-377.

Vojta CL, et al. J Gen Intern Med. 2001;16:525-530.

Baseline Patient Characteristics

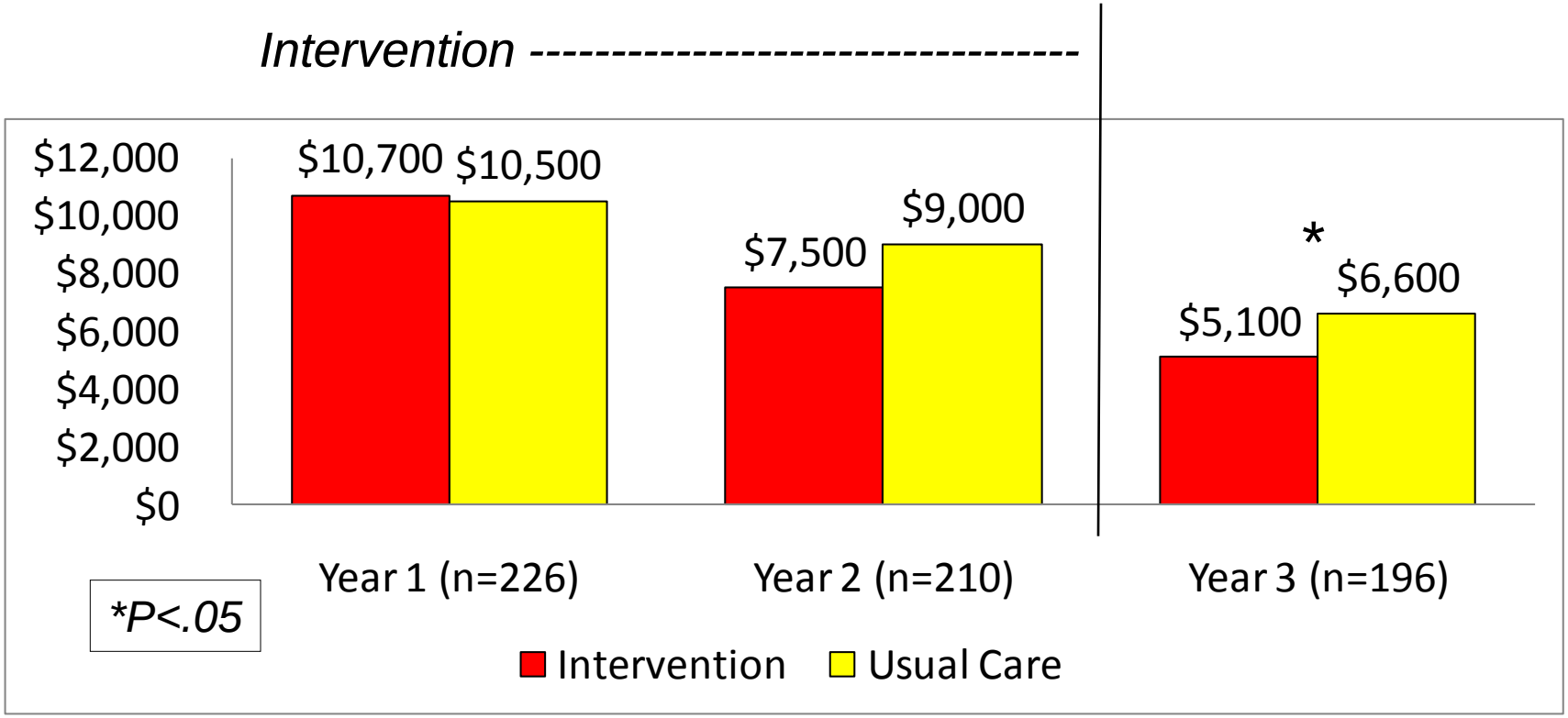
Variable	Full Sample (n=951)	High Risk (n=226)
Age	72	72
Female	77%	77%
African American	60%	66%
Medicaid Recipient	36%	37%
Perceived Health (fair/poor)	52%	81%
Chronic Disease Count	2.7	3.6
Instrumental ADL (help ≥ 1)	37%	48%
Basic ADL (help ≥ 1)	15%	27%

Hospital Admissions per 1000 – High Risk



	Year 1	Year 2	Year 3
GRACE	705	396	370
Usual Care	798	705	615

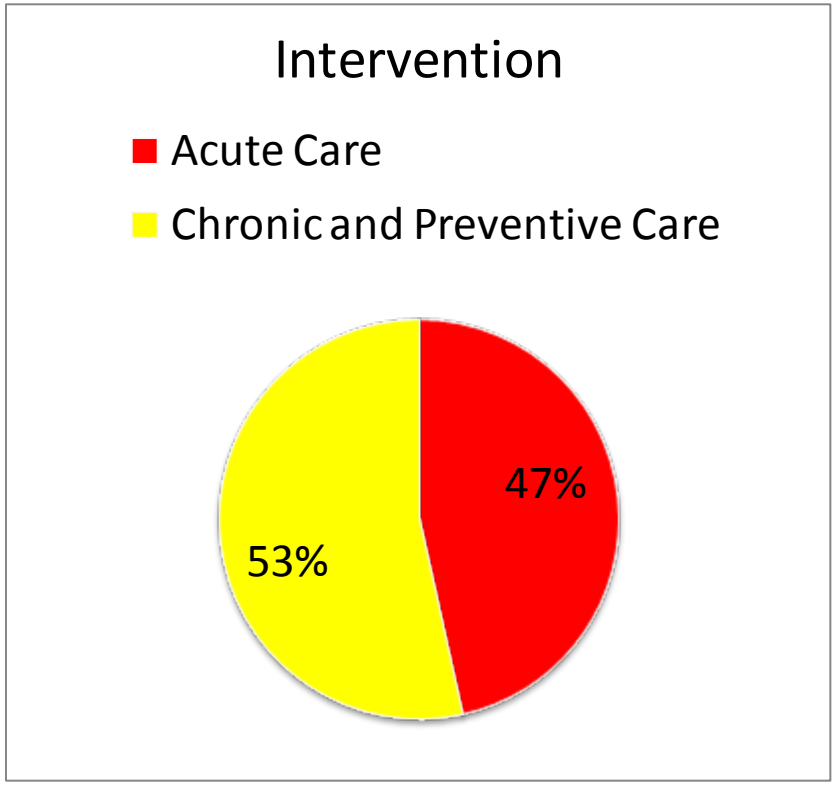
Total Costs Per High Risk Patient

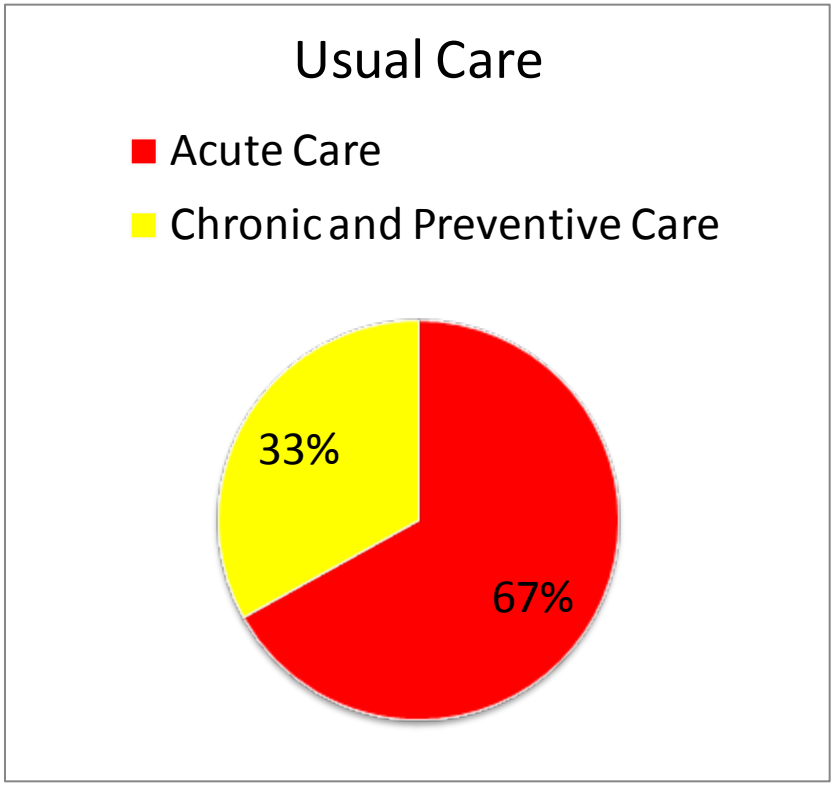


Counsell SR, Callahan CM, Tu W, Stump TE, Arling GW. Cost analysis of the geriatric resources for assessment and care of elders care management intervention. J Am Geriatr Soc 2009;57:1420-1426.

Total Two-Year Costs Per Patient

High Risk (n=226)





Aging with GRACE

WISHARD℠

GRACE Model – Keys to Success

1. Created by collaboration of geriatrics and primary care
2. NP/SW team assigned by physician and practice site
3. Focused on geriatric conditions to complement care
4. Provided recommendations for care and resources for implementation and follow-up
5. Incorporated proven care transition strategies
6. Provided home-based and proactive care management
7. Integrated with community resources and social services
8. Developed relationships through longitudinal care

GRACE Dissemination

- HealthCare Partners – Southern California
  - The SCAN Foundation
- VA Healthcare System – Indianapolis
  - VHA Office of Geriatrics and Extended Care
- ADRC Evidence-Based Care Transition Programs
  - ACA: U.S. Administration on Aging & CMS
- PACE Program – Oakland, California
  - Center for Elder's Independence

Indiana ADRC "Integration" Model

- ADRC care manager assumes GRACE social worker role with GRACE team
- Identify HCBS waiver clients on admission
- Collaborate in discharge planning
- Provide GRACE transitional and ongoing care
- Assume HCBS waiver case management

Patient centered care transition, better care coordination, and reduced readmissions and NH placement.

Indiana ADRC Care Transitions Program

GRACE
Primary Care

GRACE
Primary Care

WHS Hospital Transition Team

CICOA Aging & In-Home Solutions

VA Hospital Transition Team

IU Geriatrics

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GRACE TEAM CARE

All Together Better Care