

# Role of Disease Management in Promoting Patient Safety & Reducing Medication Error

National Disease Management Summit

Baltimore, Maryland

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- Challenges consistent and far reaching
  - Twenty areas of focus
  - Stakeholder commitments
  - Patient-physician relationships

- Twenty areas of focus
  - Medication management
  - Early intervention
  - Evidence based approach
  - Care coordination

- Stakeholder commitments
  - Safe, effective care
  - Patient centered
  - Provide access to information
  - Evidence based
  - Continuous relationships

- Patient-physician relationship
  - Evidence based
  - Customized
  - Patient control/autonomy
  - Safe
  - Informed patient

- Recommended focus
  - Dept. of Health Services
  - Use of Information Technology
  - Payment methodologies that align with quality objective
  - Re-orienting work force

## Patient Safety:

Avoidance, prevention and amelioration of adverse outcomes/injuries stemming from HC processes--NPSF

## Medication Error:

Failure of a planned action to be completed as intended or the use of the wrong plan to achieve an aim--IOM

Definition broadened to incorporate outpatient

- 90,000 inpatient deaths due to error
- ~1 million preventable deaths due to failure of outpatient care



American healthcare system is highly complex and was not designed to minimize error nor promote safety

- Fragmented
  - People
  - Technology
- Knowledge gaps
- Incentives not aligned
- Variation in practice/treatment patterns

## Outpatient opportunities

- Physician education of EB guidelines
- Avoid errors of omission
- Detect errors of dosing and duplication
- Identify and close gaps in the system
  - Care coordination to enhance effectiveness
  - Patient education
  - Patient compliance
  - Access to healthcare

# Patient Safety – Outpatient Cases



- Real situations
- Real people
- Real common
- Patients need Real Help
- Real personal
- Real opportunities to make a difference
- *Who helps those who don't have doctors in their families???*

# Role of DM in Patient Safety



- Is there a conceptual fit?
- Is there a specific need in the chronically ill?
- Does today's DM model address Patient Safety?
- Should promoting Patient Safety be a role for DM?
- Future considerations

## Disease Management:

System of coordinated healthcare interventions and communications for populations with conditions in which patient self-care efforts are significant

## Disease Management

- Supportive of physician/patient relationship
- Use of evidence based practice guidelines
- Supports collaboration of all healthcare providers
- Outcome measurement, feedback, reporting

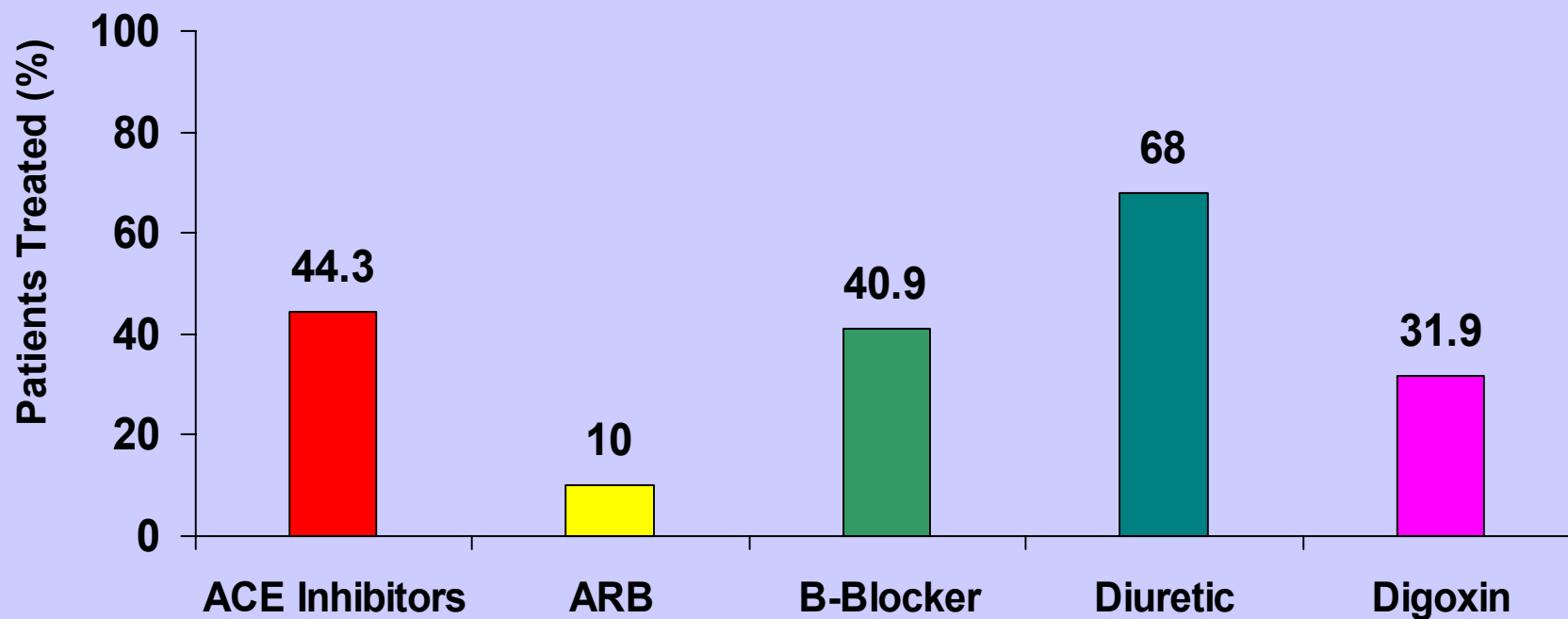
## UnitedHealth Group

- 325,541 high risk patients
  - 45% reported medication compliance issues
    - Concerns over multiple medications
    - Did not understand how to take medication
    - Did not fill medication
  - 22% reported inability to provide the self care expected in the treatment plan

# Utilization of Evidence-based Therapies in Heart Failure



LVEF Documented and  $\leq 0.40$ \*

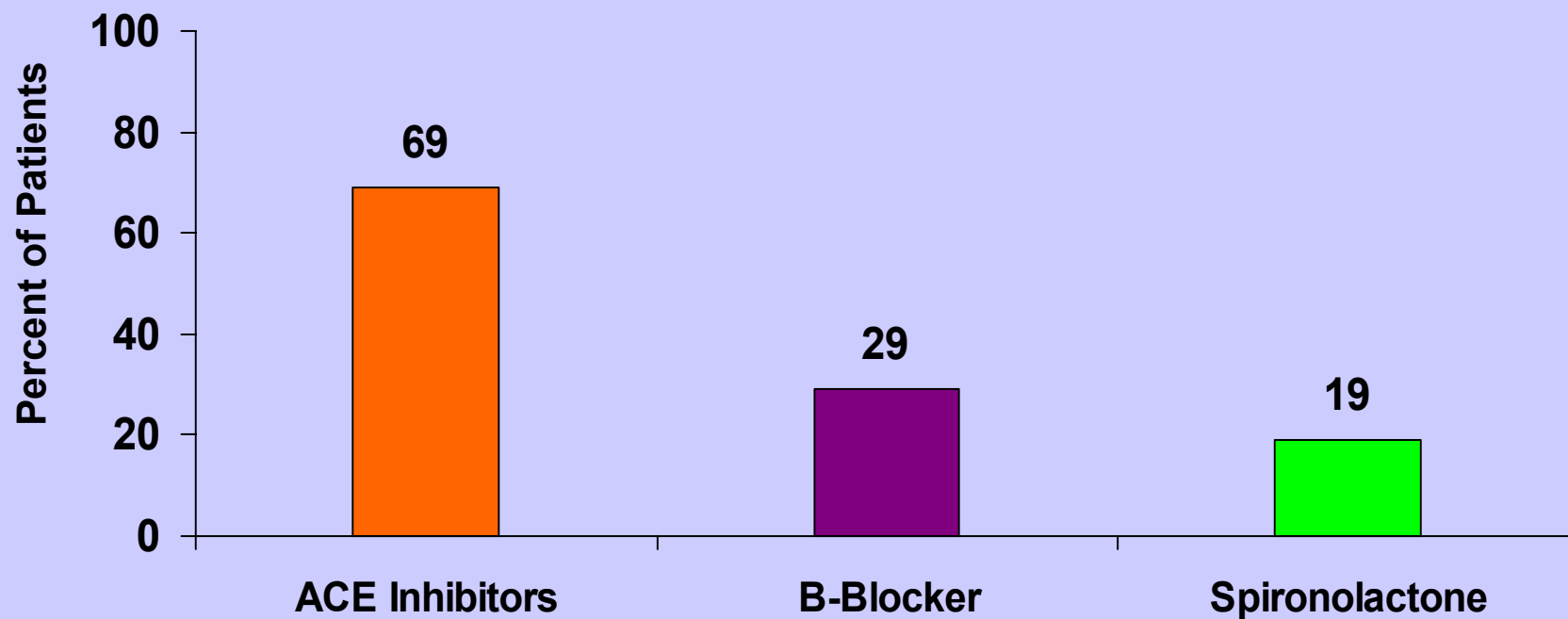


\* Excludes patients with documented contraindications.

2300/7883 Patients hospitalized with HF; prior known dx of systolic dysfunction HF; outpatient medical regimen.  
ADHERE Registry Report Q1 2002 (4/01-3/02) of 180 US Hospitals  
Presented by GC Fonarow at the Heart Failure Society of America Satellite Symposium, September 23, 2002.



# Utilization of Evidence-based HF Therapies at University Hospitals



University Hospital Consortium HF Registry: 33 centers, 1239 patients, Year 2000.  
Outpatient regimen before HF hospitalization in patients with Stage C HF.  
Unpublished data provided courtesy of Dr GC Fonarow, UCLA Medical Center

## Asthma self care knowledge gaps

### – Inhaled corticosteroids

- Study by Boulet, L.P., Perception of the role and potential side effects of ICS among asthmatic patients, Chest 1998 Mar; 113 (3): 587-92
  - 43% of users thought ICS “opened the airways”
  - Only 14% answered that ICS prevented flares

### – Peak flow meters

- UnitedHealth Group
  - 17% users of pfm alter treatments based on readings

## Vascular Access & Timing of Nephrology Referral

	<u>n</u>	<u>Fistula</u>	<u>Graft</u>	<u>Catheter</u>	<u>Unkwn</u>
Early Referral	104	46%	19%	35%	0%
Urgent Referral	95	21%	15%	62%	2%
No Referral	41	2%	10%	85%	3%

*Walworth et al; J Amer Soc Neph 2000; 11 201A*

# Value of Early Nephrologist Referral on Morbidity & Mortality



## Interval Between Referral and Initiation of Dialysis

	> 6 months	< 15 days
Hospitalization days	4.8 ± 3.3	29.7 ± 15.8
Three-month mortality	1.6%	7.1%

*Jungers et al, J Am Nephrol 1997;8:140A*

## Patient:

57 y.o. man, factory worker in Rock Springs, WY

## History:

Under treatment with family physician for mild heart disease, diabetes, and hyperlipidemia.

## Event:

Goes to nearby tertiary care center for PC stent placement. Procedure successful; patient returns home.

- Opportunities for error
  - Fragmentation
    - Primary care doctor not following patient
    - Tests done at “community hospital” often repeated
  - Discharge Medication
    - Patient cannot afford
    - Diabetes medication changed due to formulary
    - Ace inhibitor stopped due to good LVF
    - Duplication/redundancy

- Opportunities for error
  - Variation in practice/treatment patterns
    - Cholesterol management-specialist vs. PCP
    - Who should patient call three weeks later for a problem?
    - Physician to physician communication
  - Knowledge gaps
    - Vitamin combination to reduce vessel closure rate
    - Patients rarely explained the significance of medications

- Opportunities for error
  - Incentives not aligned
    - Those with most specialized knowledge often focus on procedures
    - Physicians are compensated on volume, not quality
    - No clear accountability for keeping patient healthy
    - No clear obligation to report when these “gap” errors occur



- Heightened awareness
  - IOM reports
  - Cost impact
  - Consumer/purchaser expectations
  - Payer attitudes
- Awareness not universal
  - Kaiser Family Foundation/Harvard School of Public Health\*
    - 35% of MDs, 42% of public experienced medical error
    - Only 5% of MDs, 6% of public consider medical errors a top concern in healthcare

*\*R. Blendon, Sc. D., et. al., NEJM, Volume 347:1933-1940*

- Current Industry approaches
  - Information systems
  - Integrated healthcare delivery
  - Clinical guidelines

- IOM recommendations: Ideal approach
  - Re-design health care system at all levels, prioritizing safety and error reduction
    - Work force re-orientation
    - Payment methodologies
  - Focus on systemic issues rather than blaming individuals
  - Government support
  - Emphasis on technology solutions

- Uniquely positioned
  - Focus on high risk, vulnerable patients
  - Specialized knowledge
  - Bridge gaps between all providers, patient, family
  - Clinical guidelines exist and are foundation of intervention
  - Can access claims, labs and self reported data
  - Mission aligned with patient safety
  - Personal connection to patients and physicians

- Already plays an important role today
- Not the only solution, but can play a significant role in outpatient arena
- Opportunities for the future
  - Establish consensus for standards
  - Establish consensus for reporting
  - Collaborate with payer and physician community to establish method for feedback and improvement

- Should not become another 'mission' initiative
  - Healthcare delivery stakeholders must support and value Patient Safety
- DM can modify the processes by which patients with chronic conditions are treated in USA
  - Education of patient and physician
  - Enhanced feedback and reporting

Best opportunity  
to change the  
outcome