

## FOCUS ON FUNCTION

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## FRAILITY SYNDROME

- State of decreased physiologic reserve and high vulnerability for subsequent morbidity and mortality.
- Loss of complexity in resting dynamics involving multiple organ systems, manifested by maladaptive responses to stressors, leading to vicious cycle towards functional decline and other adverse clinical outcomes

## PHENOTYPE OF FRAIL ELDERLY

- 3 OR MORE OF THE FOLLOWING:
  - Weakness
  - Low physical activity
  - Slowed motor performance
  - Exhaustion
  - Weight loss
- 7-10 percent among community dwelling 65 and over (1\3 of those 80 and over)

• J Am Geriatr Soc 2006;54:991-1001

*ff non sustainable*

## Institutionalization

- Non sustainable model
- Current SNF bed rates for Medicaid at 2007 rates in NY
- Medicaid is primary payor nationally
- Medicaid accounts for 23 percent of state budgets on average and growing
- Average annual cost 76,460 \$ (private facilities account for 73%)

- Average cost represents one and one half the average annual household income in the U.S.
- 16,715 certified facilities in 2000 vs 15,772 in 2007 (some due to consolidation)
- 1,464,503 residents in 2000 vs 1,420,217 in 2007
- 10.2 % of seniors over 75yo lived in SNF in 1990 vs 7.4 % in 2006

- In 2005 only 14% of those with LTC needs lived in nursing facility
- 2006 and 2007 saw over 26 states expand Medicaid home based services
- Waiver authority to **uncovered** services as long as they are needed to prevent institutionalization.

American Health Care Assoc.  
CMS OSCAR data 12/08

### Loretto Green House Project

- Alternative to traditional institution

### Green House

- 12 "homes"
- Patient centered care for the elderly
- 12 residents per home
- "shahbaz"
- Approx 20 percent more expensive than traditional LTC facility

### Assisted Living

- Wide variation in level of services offered and licensing guidelines
- Theoretically a greater level of choice and independence in a home like setting
- Mostly paid for privately (some Medicaid partial coverage for lowest income )
- Average cost 36,096 Genworth Financial 2008

- Despite pressures to allow aging in place only 27 percent of ALF residents lived out their lives at facility
- *34 percent discharged to nursing home for health reasons*
- *Most facilities denied people who needed assistance with transfer* The Gerontologist 2003;43(6): 875-882

### PACE CNY

- Program for All Inclusive Care of the Elderly
- Medicare waiver,, capitated managed care
- Must be Nursing Home Eligible , living at "home"
- Financial risk to the agency providing care
- Team based approach
- Care is not restricted to usual covered medicare medical services
- Function become primary goal of team
- Disincentive to Nursing Home Placement

### PACE ENROLLEES

- 8\2010 - 8\2011
- 50 random charts
- Age range 63-99 yo average 80 yo
- 30\50 lived alone
- 34\50 with history of falls
- **0-22 medications average 9.4**

- Most new enrollees on over 9 medications
- Statins, multiple blood pressure and diabetic medications
- Our census is over 400 participants
- Falls responsible for large percentage of hospitalizations
- Injuries from falls frequent cause of institutionalization (anti-PACE) and permanent disability

- ### Traditional Medical Model
- Not focusing on function
  - Traditional payors not focusing on function
  - Very few PACE programs (require medicare waiver)
  - Frail elderly do not reap the benefits of aggressive medical treatment of many chronic illnesses (despite very good evidence for benefit in the young)
  - Not surprising given the definition of fraility

- ### ACCORD *(ave 65yo)*
- Aggressive treatment of diabetes in elderly resulted in increased mortality rates (trial interrupted for safety) Ha1c 7.5 vs 6.4  
NEJM 2008 Jun 12; 358:2560
  - Aggressive treatment of blood pressure resulted in no benefit but increased med related side effects systolic < 140 vs < 120
  - Addition of fibrate to statin of no benefit  
NEJM Apr 29;362:1575

- ### Hypertension
- Individual Data Analysis of Antihypertensive Drug Interventions (INDIANA) group, a meta-analysis of over 80 yo individuals showed no benefit on all cause mortality
  - Many similar studies with similar results ie no reduction in all cause mortality or increased mortality
  - HYVET study NEJM 358:18 May 2008 double blind RCT 3845 patients 80 and over showed 21 percent reduction in death from any cause, greater reduction in strokes and CHF. Mean pre-enrollment BP was 173/91, post treatment 15/6.1 mm drop post treatment.

- ### FUNCTION
- Falls leading cause of hospitalization and injury related death in persons over 75 Cochrane database 2003
  - Loss of independence
  - Institutionalization
  - CGA 14 studies 5117 participants (6 months median after intervention) NNT was 17 to prevent one institutionalization of community dwelling (home). Cochrane Collaboration 2011 issue 7

- CGA : 18 studies 7062 participants median 12 months : 1.16 odds ratio of still being alive and at home . ( NNT 33 when compared to usual medical treatment to prevent one unnecessary death or institutionalization.) Cochrane Collaboration 2011 issue 7
- Accidents 5<sup>th</sup> leading cause of death in the elderly (falls constituting 2\3 )

### AGS Guidelines for Preventing Falls in the Elderly

- Updated 1\13\11
- Multifactorial interventions balance, gait, strength training
- Environmental adaptation
- Focus on raising blood pressure where appropriate
- MEDICATION REDUCTION NOT ONLY FOR THOSE INDIVIDUALS ON MORE THAN 4 MEDICATIONS

### NEW MEDICAL MODEL

- FUNCTION IS PRIMARY FOCUS
  - MEDICATION ONLY AS NECESSARY WITH PRIMARY GOAL OF AUGMENTING FUNCTION
  - ? PAIN
  - ? OSTEOPOROSIS
  - ? PSYCHE \ COGNITION
- Allow the multi-interventional approach

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