Caring for Older Women: Current Issues in Geriatrics

Controversies in Women's Health
December 10, 2010

Life Expectancy 1850 - 2007


“The Aging Century”

- Visits to physicians in many IM and surgical specialties are already disproportionate for patients aged 65 years or older:
  - General primary care 28%
  - Internal medicine 43%
  - IM subspecialties 44%
  - Cardiology 60%
  - Surgical specialties 25-65%

- The proportion of visits by older patients increases by 1% annually
Old age is gendered

- Over 65:
  - Women: 57%
  - Men: 43%

- Over 85:
  - Women: 68%
  - Men: 32%

Geriatrics and Gender

- Women = the majority of older patients and the majority of caregivers of older persons
  - COPE Trial
    - Patients: mean age 82.4 years, 68% female
    - Caregivers: mean age 62, 89% female
  - Older women have higher burdens of chronic conditions, geriatric syndromes and worse self-rated health
    - Disability after Hospitalization Trial
      - Mean age 78, 65% female
      - Women more likely to be frail, live alone, have cognitive impairment and depressive symptoms

- 10% of 80-year-olds die in less than 2 years
  
  But...

- Nearly 50% live a decade or more longer

- How do we take good care of this growing population with diverse health status and needs?
Methods

• Literature review
• Recent articles with potential to change, inform or confirm practice
• Methodologically sound
• Reviewed in ACP Journal Club, Geriatrics Journal Club or Journal Watch
• Avoid overlap with other presenters
• Key topics + geriatric paradigm

Topics

• Dementia
  – Risk
  – Driving
  – Late stage
• Falls
  – New risk factor
  – Vitamin D
• Patient-centered Care
  – New prognostic model
  – Advance care planning

• BJ, a 76 year old woman with HTN and stress incontinence, comes to clinic for a routine visit. Outside the exam room, an older man introduces himself as her husband and says, "She doesn't see it but she's losing her memory." The patient herself does not raise the issue and when asked about memory reports no problems. She gives a clear history and says she continues to do all the housework and volunteer at her church. What is the diagnosis?
  A. Normal aging
  B. Mild cognitive impairment
  C. Early dementia
  D. Hearing loss
  E. Unable to determine
Mild Cognitive Impairment

Articles and abstracts 1990-2008:

Flowchart for the diagnosis of mild cognitive impairment (MCI) and its subtypes

Age-related Cognitive Change

- Most common complaint: word (name) finding
- Primary problem in long term memory is recall (accessing the info), not recognition
- More trouble with difficult tasks when distracted
- Slower information processing
- Some decline in process-oriented aspects of short term memory
How to diagnose MCI?

- **The Mini-cog**
  - 3 item recall + Clock Drawing Test (CDT)
  - Give 3 items and ask pt to repeat and remember them
  - Divert using CDT
  - Ask for recall of 3 words

- **Scoring**
  - 1 point for each recalled word
  - CDT Normal if the patient places the correct time (1 point) and the clock appears grossly normal (1)

- **MCI**
  - Pt misses 1-2 words on recall OR 1 recall + 1 clock OR nl memory abnl clock and other MCI criteria

Why diagnose MCI?

- **Increase risk of progression to dementia**
  - 6-10% per year vs 1-2% in those without MCI

- **Increased need for follow up**
  - Functional status
  - Behavior
  - Driving

- **Treatment of depression**

- **Participation in trials of disease modifying agents**

- **Safety of patient and others**

- **Planning for the future**
SA is an 81 yo woman with h/o CABG, breast CA, massive GIB, HTN, hypothyroidism and mild dementia who comes in for f/u. Her daughter sends an email saying she doesn’t think SA can drive safely anymore. The patient says she has had no accidents and really only drives short distances. For the last couple of years, she has avoided night and highway driving. Which part of this history is NOT useful in determining driving safety?

A. History of mild dementia
B. Email from daughter
C. Self-rating of driving ability
D. Absence of history of accidents/citations
E. Self-limitation of driving distance and type

Safety: Driving and Dementia

- Practice Parameter update: Evaluation and management of driving risk in dementia
- Systematic literature review
  - Recommendations mostly based upon level B or C evidence
  - No single test or attribute that accurately predicts risk
  - Even patients with mild dementia are at high risk for unsafe driving
- Article provides
  - Risk algorithm
  - Patient and caregiver questionnaires

Dementia and Driving

- Patient is at increased risk for unsafe driving if:
  - Clinical Dementia Rating scale score ≥ 0.5 (A)
  - Caregiver rates patient’s driving ability as marginal or unsafe (B)
  - Pt has a history of crashes or traffic citations (C)
  - Pt has reduced driving mileage or self-reported situational avoidance (C)
  - Mini-Mental State Examination scores ≤ 24 (C)
  - Pt exhibits aggressive or impulsive personality characteristics (C)
- Your responsibility
  - Laws vary by state
Which of the following is true?

A. African-Americans and Latinos are 1.5 times more likely than whites to develop Alzheimer’s

B. A 2010 study showed a mean 6.7 year survival after diagnosis with dementia in primary care setting

C. Incidence and prevalence of dementia are higher in women than in men

D. Between 2000-2006, deaths from CAD, CVA and HIV declined while deaths from Alzheimer's increased by 46%

E. All of the above
Advanced Dementia

- 7th leading cause of death
- The clinical course of advanced dementia has not been well studied

The study
- 18-month, multicenter, prospective study of 323 nursing home residents with advanced dementia
- Goal: describe their clinical course with attention to hospital utilization, quality of life, use of palliative care

Clinical Course of Advanced Dementia

Eligibility criteria
- Age ≥ 60 + dementia
- Cognitive Performance scale 5-6 (= MMSE of 5)
- Global Deterioration scale stage 7 (range 1-7)
- Availability of an English-speaking health care proxy

Survival and clinical complications
- 55% died; adjusted mean survival 478 days
- Complications common:
  - Pneumonia 41%, febrile episode 53%
  - Eating problem 86%
- Sentinel event in 9%, rare in last 3 mos life
Clinical Course of Advanced Dementia

- Distressing symptoms
  - Dyspnea (>5 d) 46%
  - Pain (>5 d) 40%
  - Agitation 30%

- Burdensome interventions in final 3 months
  - Parenteral therapy 29%
  - Hospitalized 12%
  - Pneumonia 68%
  - Other infection 14%
  - Emergency Department visit 3%
  - Tube feeding 7%

- Hospice referral
  - Overall 22%
  - Among those who died:
    - 30% referred
      - 0-3d 26%
      - 4-9d 30%
      - 91-180d 17%
      - >181d 26%

- Health care proxies
  - 18% had received prognostic information from physicians.
  - 32% were informed by their physicians of probable complications
**Bottom Line**

- Advanced dementia is a terminal illness
  - Few patients died from acute events or other terminal diseases
  - Life expectancy was similar to metastatic cancer and stage IV heart failure
- Physicians do a poor job of communicating prognosis
  - Although the goal was comfort for 96%, physical suffering was common
  - When proxies were aware of prognosis, patients were less likely to receive burdensome care (OR=.12)
  - Infections and eating problems can be used to inform prognosis

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**Advanced Dementia**

- ADEPT (Advanced Dementia Prognostic Tool) Trial
  - Prospective cohort validation of a prognostic index
  - Age + male + pressure ulcer + ADL + bedfast + bowel incont + poor po’s + wt loss + low BMI + CHF
  - Only moderately predictive
  - Better than Medicare hospice criteria for dementia
- Hard to prognosticate about time of death
- Prognosis as one part of a larger conversation about goals of care and quality of life

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Alzheimer’s is, in fact, like an insidious fog, barely noticeable until everything around has disappeared. After that, it is no longer possible to believe that a world outside fog exists.

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Which of the following is NOT a risk factor for falls in older adults?

A. Previous fall
B. Hearing impairment
C. Fear of falling
D. Taking > 4 medications
E. All are risk factors

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Women and Falls

• Falls are the leading cause of injury, and injury-related deaths, in older adults
• Women are
  – 67% more likely than men to sustain injury from falls
  – 47% less likely than men to die from falls
  – Twice as likely to fracture bones
• 72% of older adults admitted to the hospital for hip fractures are women
Perceived and Physiologic Fall Risk

- **Study**
  - Prospective cohort study
  - To investigate the relationship between fear of falling (both too much or too little), physiologic fall risk and falls

- **Sample**
  - 494 community-dwelling Australians
  - Age 70-90, mean 78; 54% women

- **Exclusion**
  - Dementia, Parkinson’s, MS, other neuro disease

- **Fall** = 1 injurious or 2 non-injurious

Fall Risk Results

- 30% reported falls in previous year; 43% fell in the 1 year follow up
- In multivariate analysis perceived & physiologic risk were independent predictors ($p=0.001$)

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<tr>
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<th>Odds ratio (95% CI) of fall in 1 year</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological fall risk (physiological profile assessment)</td>
<td>1.23 (1.01 to 1.49)</td>
<td>0.039</td>
</tr>
<tr>
<td>Perceived fall risk (falls efficacy scale international)</td>
<td>1.29 (1.06 to 1.57)</td>
<td>0.010</td>
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</table>

Four types of fallers

- Vigorous group
- Ambler group
- Slip group
- Aena group

(Definition and classification criteria are provided, along with the fall efficacy scale international and physiological profile assessment scales.)
Types of fallers

• “Anxious fallers”
  – Low physiologic, high perceived risk
  – More female, depressed, low QOL and executive function, high self-rated disability and neuroticism than ‘vigorous’ group (low/low)
  – No difference in exercise/activity between anxious & vigorous but twice as many falls

• “Stoic fallers”
  – High physiologic, low perceived risk
  – Younger, less depression, fewer meds, high QOL, more exercise, low self-rated disability, stronger and more coordinated than ‘aware’ group (high/high)
  – 82% remained unconcerned even after they fell

Bottom Line

• Almost 1/3 (31%) of older people inaccurately assess their fall risk
• Low fear doesn’t lead to risk taking behavior and may decrease falls
• Ask about fear of falling
• Use both physiologic and perceived risk to direct management
  – For ‘anxious’ and ‘aware’ fallers
    • CBT to address depression, fear, perceived disability
    • Increase exercise
  – For ‘stotic’ and ‘aware’ fallers
    • Fall risk reduction exercise programs

Jane Doe
Avoid Slips, Trips and Broken Hips!

CALL DON'T FALL!

Dykes PC et al, JAMA. 2010;304(17):
Fall Prevention & Vitamin D

- Quo Vadis Vitamin D circa 2010?
- Pivotal role in calcium homeostasis and bone metabolism
- Many publications re Vit D influence:
  - Cardiovascular disease
  - Autoimmune disorders
  - Neoplasia
  - Mortality
- Widespread evidence of global Vitamin D deficiency

Interpreting Vitamin D levels
Fall Prevention & Vitamin D

- **Study Aim**
  - To test the efficacy of supplemental Vitamin D in preventing falls among older individuals

- **Methods**
  - Extensive literature search through 8/2008
  - Only DBRC studies of patients ≥ 65 years
  - Defined oral dose of Vitamin D
    - high dose (700-1000 IU a day) vs.
    - low dose (200-600 IU a day)
  - 8 trials passed screen
  - 82% study participants women

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Fall Prevention & Vitamin D

- **High dose vitamin D**
  - Reduce falls (95% C.I.)
  - 8 trials included

- **Low dose vitamin D**
  - 8 trials included

- **Combined**
  - Bischoff-Ferrari et al. BMJ 2009; 339b3692
Fall Prevention & Vitamin D

• Conclusions:
  – Vit D reduced falls among older individuals by 19%
  – Supplemental with active forms 700-1000 IU/day
  – Aim for serum 25-hydroxyvitamin D of >60 nmols/L

• Second study: once yearly high dose
  INCREASED risk for falls and fractures
  – RCT 2258 women, 500 000 IU of vitamin D3
  – Mean serum levels >90 nmols/L for 3 months
  – Both too little and too much may be risky

• Bottom line: Need prospective data

The great secret that all old people share is that you really haven’t changed in seventy or eighty years. Your body changes, but you don’t change at all. And that, of course, causes great confusion.

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• Patient-centered Care
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  – Advance care planning
Patient Centered Care

- To whom do we offer
  - Mammography
  - Colonoscopy
  - Statins
  - Optimal blood sugar control
  - Guideline-directed medical management
  - Functional assessment
  - Advance care planning
  - CABG
  - ORIF
  - Palliative care

Does it make a difference?

- If she looks like this...

Does it make a difference?

- Or like this...
Who's life expectancy is longest?
A. A 70 yo woman in poor health (25th percentile)?
B. A healthy 85 yo woman (75th percentile)
C. An average 78 yo woman (50th percentile)
D. They all have the same life expectancy

Life Expectancy for Women

Predicting 5-year Mortality
- Development and validation of a prediction index
  - Data from the National Health Interview Survey
    - 1997-2002
    - 24,115 people over age 65
- The model
  - 11 variables: demographic, health, function
    - Age, gender, smoking, BMI, perceived health, DM, COPD, CA, hospitalization, IADLs, walking
    - Risk of death varied from 5% in lowest quintile to 50% in highest
Bottom Line

- Prognosis should inform decision making
- Prognosis depends on
  - Demographics
  - Chronic conditions/health status
  - Functional status
- Goals of care
  - What does the patient value?
  - What does she fear?
  - How does she want to live?
  - How does she hope to die?

Advance Care Planning

- Prospective RCT in single university hospital in Australia
- 309 medical inpatients ≥ 80 yo followed 6 mos
  - Facilitated ACP vs. usual care
  - Trained RNs and allied health workers facilitated
  - Intervention based on “Respecting Choices”
    - reflect on goals, values, religious and cultural beliefs
    - consider future medical treatment preferences
    - appoint a surrogate
    - document wishes for end of life care
- Doctors participated prn so pts understood their illness, tx options and likely prognosis
Advance Care Planning

- ACP done by 125 intervention patients (81%) and 1 control patient
  - 84% expressed wishes, appointed surrogate or both
- 56 patients dead at 6 months

<table>
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<tr>
<th>EOL wishes known and followed</th>
<th>Impact of events scale</th>
<th>Family very satisfied with death</th>
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<tbody>
<tr>
<td>Intervention</td>
<td>36% (25/69)</td>
<td>5</td>
</tr>
<tr>
<td>Control</td>
<td>30% (8/27)</td>
<td>15</td>
</tr>
<tr>
<td>( p &lt; 0.001 )</td>
<td>( p = 0.001 )</td>
<td>( p = 0.02 )</td>
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Qualitative Data:

Control group quotes

He should have had more say. He couldn't do the rehabilitation. He knew he was dying, but the doctors didn't seem to get it.

Mum didn't want heroics. She knew she was dying. I was horrified when I heard she got 45 minutes of CPR. She did not want it. All anyone had to do was ask. I feel very hurt and hurt for mum and my sister.

Intervention group quotes

We felt really comfortable making decisions because we had discussed it with her.

We had a clear plan so could just relax and enjoy time with mum.
Bottom Line

- Code discussions ≠ ACP
- Most pts welcome ACP and expect health professionals to initiate it
  - Increased satisfaction with hospital stay (p<0.001)
- ACP increases
  - Chances that wishes will be known and followed
  - Patient satisfaction with care on hospital admission
  - Family’s sense of patient’s satisfaction with death
- Most pts did not want life prolongation
  - No difference in survival rates at 6 months
  - Large potential savings in suffering and $