

# Chronic Disease Management in the Elderly

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# Disclosures

- I have no investments in pharmaceutical companies or medical device companies
- I have not accepted money from any pharmaceutical companies in the 21<sup>st</sup> century
- I no longer serve on any advisory boards for pharmaceutical companies
- I have accepted unrestricted educational grants from pharmaceutical companies

# Objectives

The learner will be able to:

- Articulate the difference between a typical medical syndrome and a geriatric syndrome and thus the different approaches required (Occam's razor vs. Comprehensive Geriatric Assessment or CGS)
- Judge when a specific chronic disorder in an older person is worthy of treatment
- Appreciate that the management of multiple chronic diseases requires compromise

# Typical Medical Syndromes

- Fragile X syndrome:
  - Mental retardation in childhood, cerebellar problems in late life, and numerous others
- Systemic Lupus (one cause, perhaps):
  - Can present with skin rash, arthralgia, cytopenias, arthritis, pericarditis, etc.

In summary, one cause, multiple manifestations.

Classical teaching is the Law of Parsimony (Occam's razor), try and explain everything with one diagnosis.

# Typical Geriatric Syndrome

- One final phenotype, e.g. **falls**
- Rarely one cause for the falls, they are the accumulation of multiple deficits
- Rather than Occam's razor, the approach is as follows (via CGA)
  - Find out all the possible factors implicated in the fall (age related, environment related, disease related)
  - Determine which can be managed
  - Determine which can be managed quickly and which require more time and more help

# Medical Factors & Falls

- Drugs (tranquilizers)
- Peripheral Neuropathy
- Postural dizziness
- Postural hypotension
- Prior stroke
- Dementia
- One legged balance
- Abnormal gait
- Arthritis
- Parkinson's disease
- Chronic lung disease
- Foot problems (*type of shoe*)
- Visual impairment
- ↓ muscle strength

# Risk Factors for Falls (Adjusted RR/OR)

- History of Falls 1.9-6.6
- Muscle weakness 2.2-2.6
- Balance abnormality 1.2-2.4
- Gait abnormality 1.2-2.2
- Visual Impairment 1.5-2.3
- Polypharmacy 1.1-2.4
  
- Depression, orthostasis, cognitive impairment, diabetes

Tinetti JAMA 2010

# Comprehensive Geriatric Assessment (CGA)

- The odds ratios are interesting, but in any one case it is impossible to know which factor is the 'straw that broke the camel's back'.
- This is the scientific basis for the CGA
- Ideally done by a team
- If done by primary care provider:
  - Typical history + socioeconomic data + functional data (often need collateral history)
  - Typical P/E (including MSK and neuro) + vision, hearing, postural vitals, gait

Unfortunately, there are no short cuts.



# A 'Simple' Case

- 82 year old woman with a ten year history of hypertension treated with amlodipine and lisinopril, well controlled
- However, 3 falls over the last 6 months, no obvious precipitating factors, no LOC or seizure. Fortunately no serious injuries.
- P/E: BP 125/75, no postural drop, bilateral leg edema (no CHF), uses hands to get up from a chair, a bit unsteady on her Romberg test, walks slowly without a gait aid

# Medical Factors & Falls

- Drugs (tranquilizers)
- Peripheral Neuropathy
- Postural dizziness
- Postural hypotension?
- Prior stroke
- Dementia
- One legged balance?
- Abnormal gait
- Arthritis
- Parkinson's disease
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# What to do?

1. Continue present management as no injuries so far ('trivial' fall vs. fall with trivial injury)
2. Stop one medication for BP, i.e. change target BP to < 150 systolic (likely amlodipine as has peripheral edema)
3. Stop BP medications altogether

Either 2 or 3 is reasonable. Most geriatricians would probably stop both and re-assess the need in the future

FALLS ARE A WORSE 'DISEASE' THAN HYPERTENSION IN OLDER ADULTS

# A Complex Case

- 79 year old woman with osteoarthritis, osteoporosis, DMII, COPD, hypertension
- If all appropriate guidelines were applied
  - Simplifying as much as possible (using drugs that could satisfy more than one guideline), patient would be on:
    - 12 medications
    - 19x/day, at 5 separate times
    - Onerous monitoring by patient and primary care provider

JAMA, August 10, 2005, Cynthia Boyd et al

# Guiding principles for the care of older adults with multimorbidity: An approach for Clinicians

# Gathering Information (CGA)

- Inquire about the patient's *primary concern* (and that of family and/or friends, if applicable) and any additional objectives for visit
- Conduct a complete review of care plan for person with multimorbidity, OR focus on specific aspect of care for person with multimorbidity
- *What are the current medical conditions and interventions?* Is there adherence/comfort with treatment plan?

# I. Consider Patient Preferences

- **Recognize when an older adult with multimorbidity is facing a “preference sensitive” decision, e.g.**
  - When treatment for one disease may exacerbate another disease (inhaled steroids for COPD in a patient with osteoporosis)
  - Long term benefit vs. short term harm (statins)

# Consider Patient Preferences

- **Ensure that the patient is adequately informed about the expected benefits and harms:**
  - Best with numbers, as terms such as rarely, frequently, etc. are often interpreted differently
  - Remember that health literacy and health numeracy vary dramatically, so ensure that the patient understands (teach back technique)
- **Elicit patient preferences only after the older individual with multimorbidity is sufficiently informed**



# Consider Patient Preferences

## Reminder:

1. Preference  $\neq$  Decision (although preference must always guide decision, some decide themselves, others consult, others want doctor to decide)
2. Some patients want family, friends, care-givers to participate or even decide (cognitive issues can be a factor)
3. Preferences can change over time
4. Having preferences does not confer the right to demand treatments that do not provide benefit

# II. Interpreting the evidence

- To what extent were older adults with multimorbidity included in the trials? Is there evidence of effect modification?
- What is the quality of the evidence, using accepted evidence-based medicine methodologies?
- What are the hoped- for outcomes of the treatment or intervention? Are these outcomes important to patients?
- Is there meaningful variation in baseline risk for outcomes that the treatment or intervention is designed to affect?
- Are the risks and side effects of the treatments and interventions in older patients with multimorbidity clearly known, so that a decision can be made whether the treatment for one condition will exacerbate another?
- What are the comparator treatments or management strategies?
- Is it known how long it takes to accrue the benefit or harms of the treatment or intervention?
- Does the document give absolute risk reductions or merely relative risk reductions? Is it possible to estimate absolute risk reductions?
- How precise are the findings? What are the confidence limits?

# III. Prognosis

- **Decide on the prognosis domain:**
  - Remaining life expectancy (example statin therapy)
  - Functional ability (anti-hypertensives and falls or gait disturbance)
  - Quality of life (burden of pills)
  - Condition-specific risk (e.g. stroke and ASA therapy)

**Outcomes of treatment must be carefully monitored, and therapy re-visited if necessary**

# IV. Clinical Feasibility

**Treatment complexity and burden can impact on adherence to medications, diet, etc.**

- Blister packs, dosettes etc. can help with medications
- Clinical tools that assess medication management capacity rarely used in clinical practice
- Level of health literacy and availability of education programs must be considered
- Co-management with a geriatric team (if available) may help

# V. Optimizing Therapies and care Plan

**Use strategies for choosing therapies that optimize benefit, minimize harm, and enhance quality of life for older adults with multimorbidity.**

- Developed for drugs: Beers criteria, START/STOPP criteria
- Less well developed for other factors, assessment best with an interprofessional team
- Careful follow up required

# Summary

Presented by: **Ontario's Geriatric Steering Committee**

- Occam's razor does not work in older patients, a comprehensive geriatric assessment (CGA) is the appropriate tool
- Multi-morbidity is the commonest chronic disease in the elderly and management requires compromise
- Management requires the team to:
  1. Elicit patient preferences
  2. Use evidence
  3. Establish prognosis
  4. Recommend feasible therapies
  5. Careful follow-up to optimize therapies and care-plan

# Useful Tools

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# Co-Management with a Geriatric Team

- Not always available
- Waiting lists can be long
- Not all outpatient geriatric clinics have access to a complete inter-professional team
- In many areas evidence is inadequate so at times geriatric team recommendations are only 'expert' opinion

# Template for CGA 1

Name:

Age and Gender:

Place of Residence: (apt., house, stairs, etc)

History of current problems:

PMH:

Allergies:

Medications: include administration method (dosette, bottle, etc.)

Functional history (basic ADLs, instrumental ADLs, (note if independent, supervised, assisted or dependent), gait aids

# Template for CGA II

## **Geriatric Review of Systems:**

Habits (smoking, EtOH, exercise)

Vision and Hearing (last assessments)

Cognition

Mood

Sleep

Teeth/nutrition/weight change

GI and GU (constipation, incontinence)

Pain

Falls history

# Template for CGA III

- **Social History:** birthplace (arrival in Canada), education, occupation, marital status, children, social supports(contact info), POA (\$/health), advance directives
- **Physical Exam:** Height, weight, vitals (postural), general exam, neuro exam, MSK exam, observing gait and getting out of a chair
- **Appropriate investigations** (including prior consults and recommendations)

# Helpful Literature

- American Geriatrics Society Guiding Principles for the Care of Older Adults with Multimorbidity: An Approach for Clinicians: Available on AGS website
- Clinical Practice Guidelines and Quality of Care for Older Patients with Multiple Comorbid Diseases: JAMA, August 10, 2005, CM Boyd et al
- Designing Health Care for the Most Common Chronic Condition—Multimorbidity: JAMA, June 20, 2012, ME Tinetti et al
- Smart phone App: MCC Gems: available free of charge

# Questions?

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