

# The Big “A” of Geriatrics:

## Anxiety Disorders in Late Life

by

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Psychiatry/ Geriatrics Joint Grand Rounds

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# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- 71 year old woman, widowed, lives alone
- Presents to ER for 3rd time in 1 month with sudden onset of chest pain, SOB, weakness
- Several falls in past 2 months
- Medical history: hypertension, past MI, atrial fibrillation, arthritis
- Medications: atenolol, nitro spray, ASA, alprazolam, lorazepam

# *Anxiety Disorders in Late Life:* Outline

- Epidemiology
- Diagnosis
- Comorbidity
- Treatment
- Case discussion

# *Anxiety Disorders in Late Life*



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# *Anxiety Disorders in Late Life:* **Anxiety is #1 Disorder**

- Lifetime prevalence: 15%<sub>a</sub> (ECA)
- Prevalence >65 y anxiety is 10-20%<sub>a,b</sub>  
Dementia 8%; Depression 1-3%
- Most common psychiatric d/o across life span
  - Disease burden: >65 y will double in 30 y

a) Blazer DG et al, Anxiety disorders in the elderly: treatment and research., 1990 New York; Springer; b) Banazak DA, JABFP 1997, 10;4 280-9

# *Anxiety Disorders in Late Life:* Prevalence Decreases with Age?

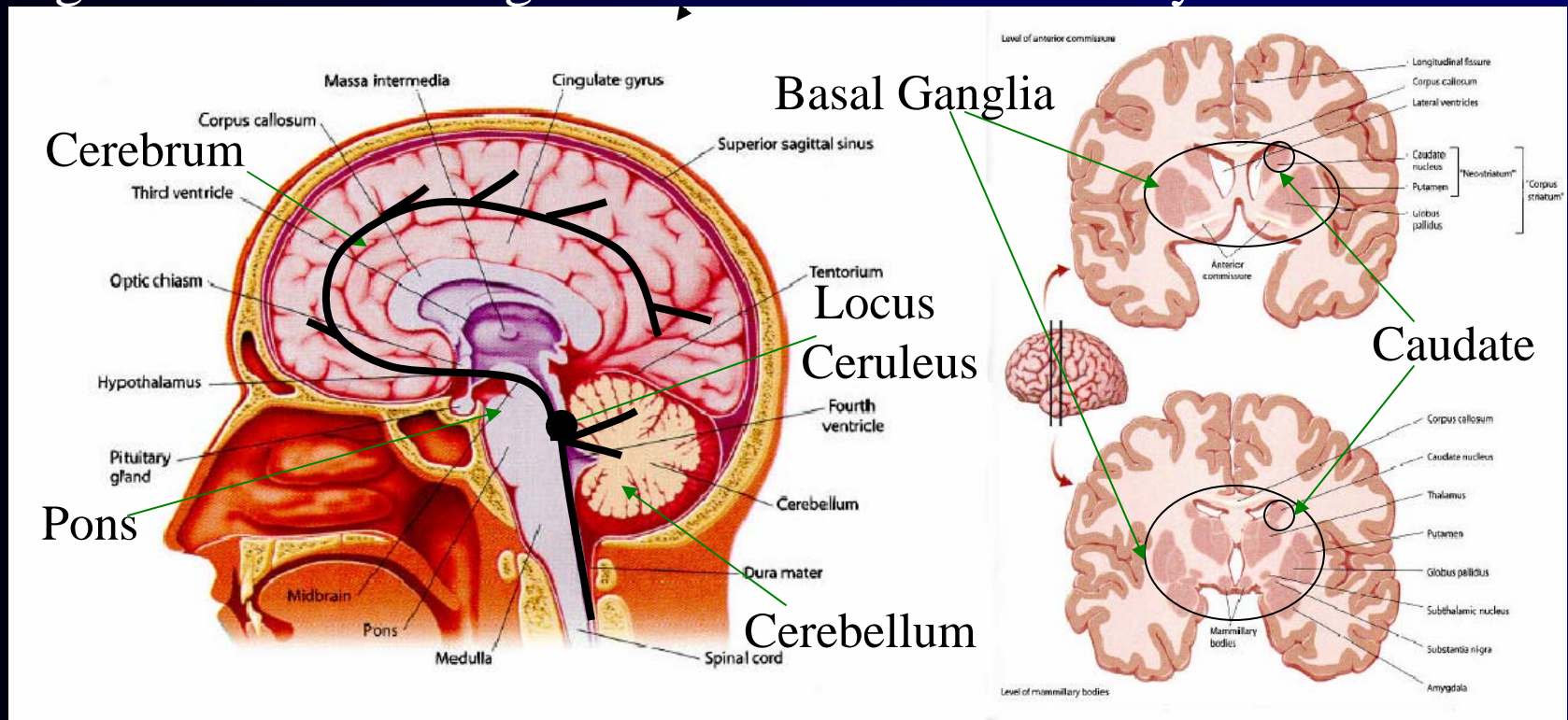
- Anxiety d/o decline with advancing age: <sup>a,b</sup>
  - Age-bias in DSM and in scales used<sup>c</sup>
  - Comorbidity (psychiatric, medical)
  - Cognitive styles change<sup>d</sup>
  - Neurotransmitters change (CCK<sup>e</sup>, speech task challenge less cortisol<sup>e</sup>)

a) Larkin BA et al, Br J Psych 1992; 160: 681-686; b) Manela M et al, Int J Geriatr Psych 1996; 11: 65-70.; c) Palmer BW et al, J Affect Disord 1997;46:183-90; d) Flint AJ, Am J Psych 1994; 151: 640-9 e) Nicholson N et al, J Gerontol 1997, 52A:M68-75 f) Flint A et al, Am J Psych 1998; 155:283-5



# OCD/Panic: Anatomy

Age-associated changes brain neurotransmitter systems:



Cholecystikinin (CCK-4)<sub>a</sub>: Fewer panic symptoms in elderly

Flint A et al, *Am J Psychiatry* 1998; 155; 283-5.

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## *Anxiety Disorders in Late Life:* Usually Earlier Onset

- Considered a disorder of childhood/ early adulthood: Peak onset 18-40 y<sub>a</sub>
- Less common as a solitary disorder
  - Usually a comorbid disorder in late life
- More clinically relevant, costly with age

a)Ritchie K et al British J Psych 2004; 184: 147-52

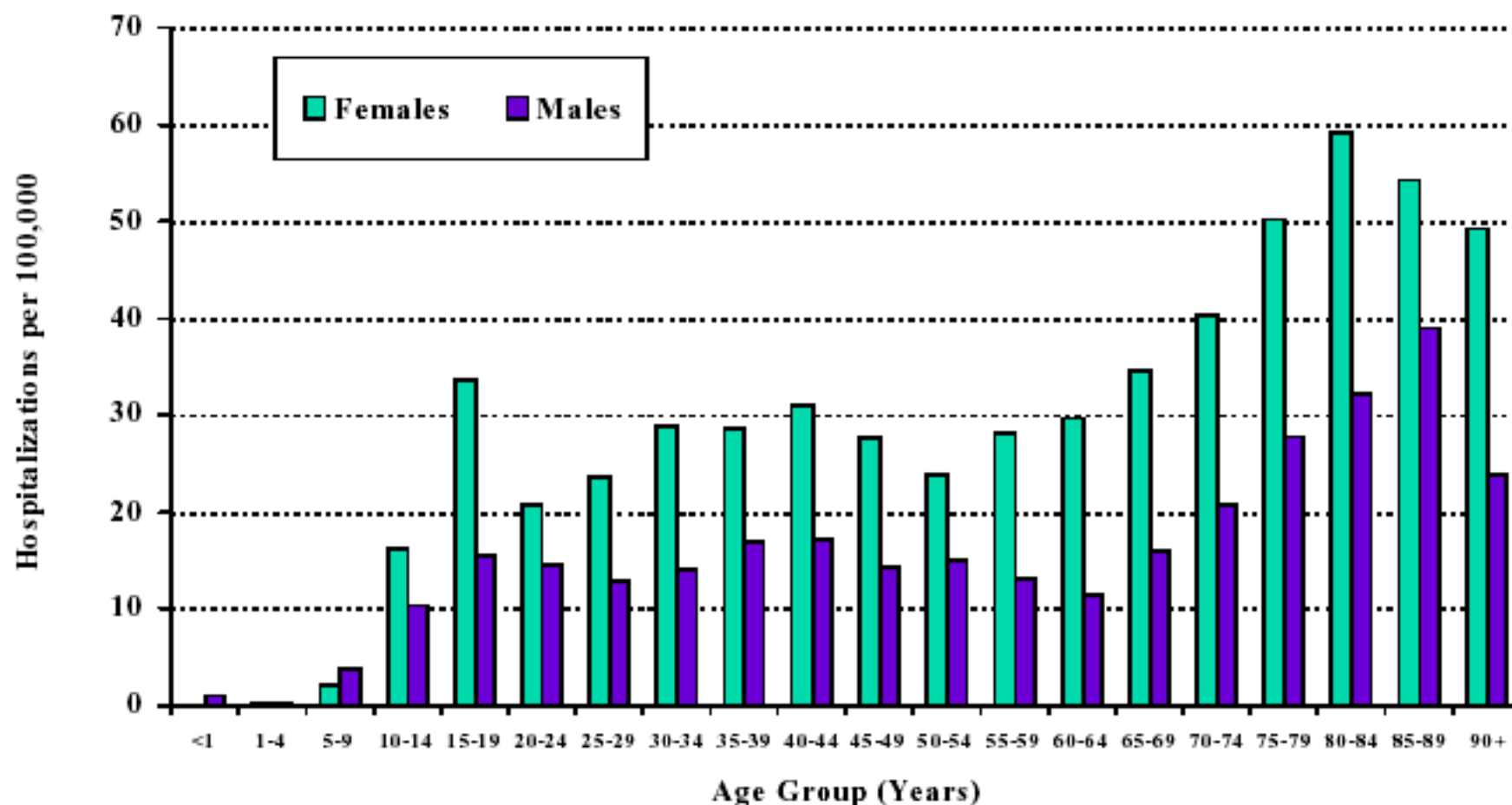
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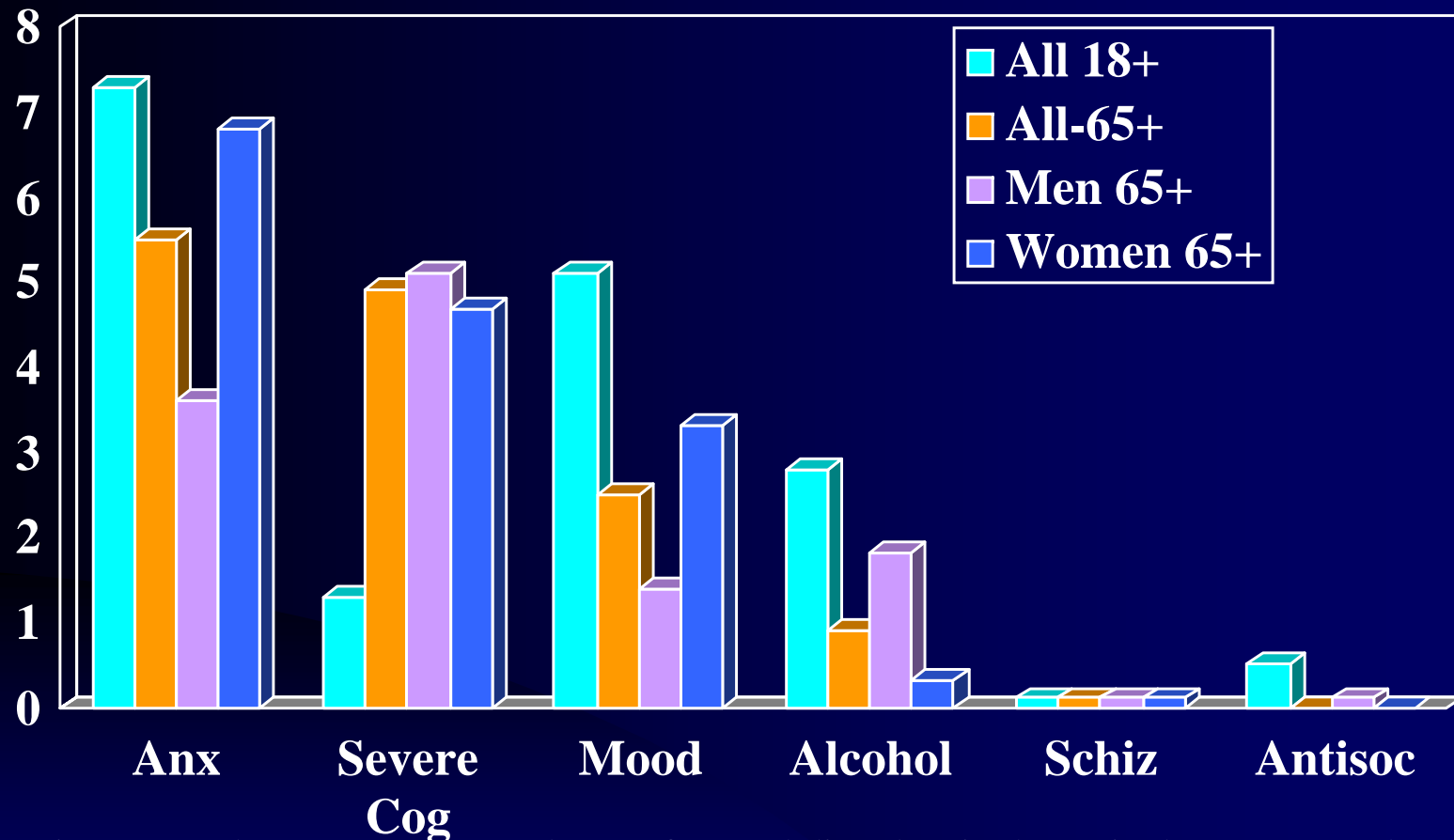
**Figure 4-1 Hospitalizations for anxiety disorders\* in general hospitals per 100,000 by age group, Canada, 1999/2000**



\* Using most responsible diagnosis only

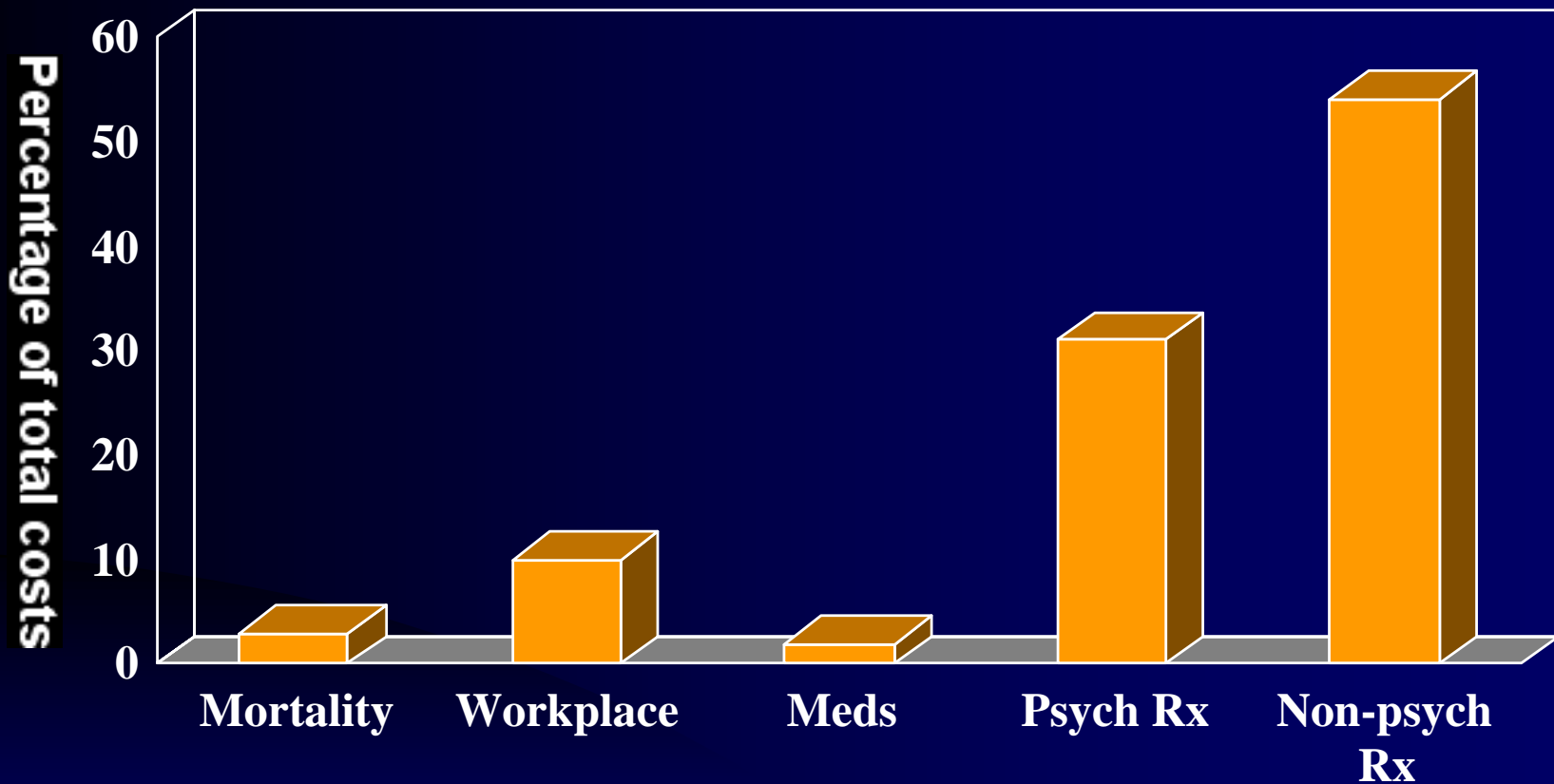
Source: Centre for Chronic Disease Prevention and Control, Health Canada using data from Hospital Morbidity File, Canadian Institute for Health Information

# ECA One Month Prevalence (%) of Mental Disorders 65+ (Regier et al, 1988)



Regier DA et al. One-month prevalence of mental disorders in the United States. Based on five Epidemiologic Catchment Area sites. *Arch Gen Psychiatry*. 1988 Nov;45(11):977-86.

# 1990 US costs of anxiety disorders (Total cost \$42.3 billion)



**Greenberg PE et al. The economic burden of anxiety disorders in the 1990s.**  
J Clin Psychiatry. 1999 Jul;60(7):427-35.

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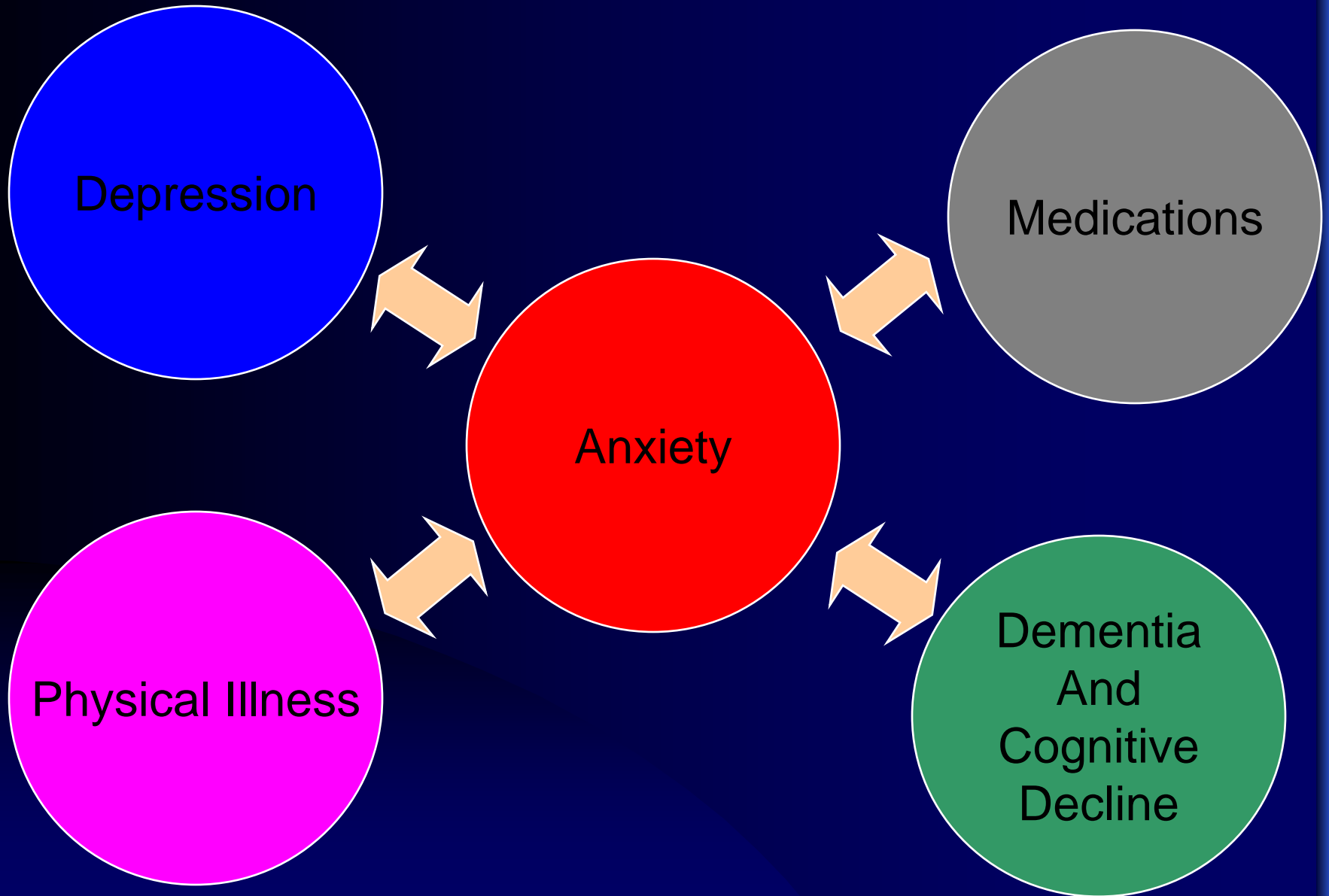
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# *Anxiety Disorders in Late Life:* Outline

- Epidemiology
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# Comorbidities and Causes



# *Anxiety Disorders in Late Life:* **Risk Factors >65 y**

- Anxiety d/o earlier in life
- Female
- Lack of social supports
- Recent trauma
- Medical illness/ medications
- Poor self-rated health
- Psychiatric illness

DeBeurs, E et al, Br J Psychiatry 2001;179:426-31

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## *Secondary Anxiety Disorders:* **Medications**

- Withdrawal\*: benzodiazepines, EtOH
- Stimulants\*: caffeine, bronchodilators
- Ca<sup>++</sup> channel, alpha, beta blockers\*, digitalis
- Estrogen, thyroid, muscle relaxants, NSAIDS
- Antidepressants, antipsychotics, levodopa
- Anticholinergic medications\*: antihistamines, pseudoephedrine
- Steroids, theophylline

## *Secondary Anxiety Disorders:* **Medications**

- Antipsychotics, antidepressants
- Side effects (akathisia, dyskinesia) mimic anxiety symptoms

# *Secondary Anxiety Disorders:*

## **Medical Illness**

### **Anxiety:**

- CV <sub>a</sub>: angina, arrhythmia, MI, MV prolapse <sub>b</sub>, *stroke*\* <sub>c</sub>
- Endocrine: *DM*\* <sub>d</sub>, Ca<sup>++</sup>, thyroid, pheochromocytoma
- GI/ GU: PUD, pancreatic CA, UTI
- Metabolic: anemia, hypoglycemia<sub>d</sub>, low Na<sup>+</sup>, high K<sup>+</sup>
- Pulmonary<sub>a</sub>: *COPD*\*<sub>e</sub>, pneumonia, PE, hypoxemia
- Neurologic<sub>a</sub>: *delirium*\*, *dementia*\*, *hearing and visual impairment*\*, *PD*, seizure, CA

a) Goldberg R et al, Psych care of medical pt, New York: Oxford University Press 1993 b) Katon W J Clin Psych 1986; 47 (suppl): 21-30; c) Astrom M Stroke 1996;27 (2):270-5 ;d) Grigsby A et al, J Psychosom Res 2002; 53 (6); 1053-60; e) Kvaal K, Int J Geri Psych 2001; 16; 690-3

# *Anxiety Disorders in Late Life:*

## Neurological Illness

- Sensory impairment: anxiety & MDD<sub>a</sub>
- Delirium: prominent anxiety sx<sub>b</sub>
- Frontal, caudate lesions<sub>c</sub>: OCD
  - Stroke, HD, Parkinson's, Sydenhams' chorea
- Vertigo, Parkinson's<sub>d</sub>: panic
  - 85% comorbid medical illness

a)Wands K et al, J Am Geriatr Soc 1990; 38:535-8; b) Jacoby R et al Br J Psychiatry 1980;136; 256-69 c)  
Weiss A, J Neuropsych Clin Neurosci 2000;12(2); 265-8;. d) Katon W, J Clin Psych 1989; 4: 21-30

# *Anxiety Disorders in Late Life:* Cardiovascular & Respiratory

Anxiety disorders increase<sub>a</sub>:

- Arrhythmias & ischemic events after MI
- Disability, loss of ADL's and social fxn after stroke; Mortality in CAD
- COPD<sub>b</sub>: high anxiety, panic & GAD

Lenze EJ et al, Depression and Anxiety 2001; 14:86-93; b) Kvaal K, Int J Geriatr Psychiatry 2001; 16; 690-3;

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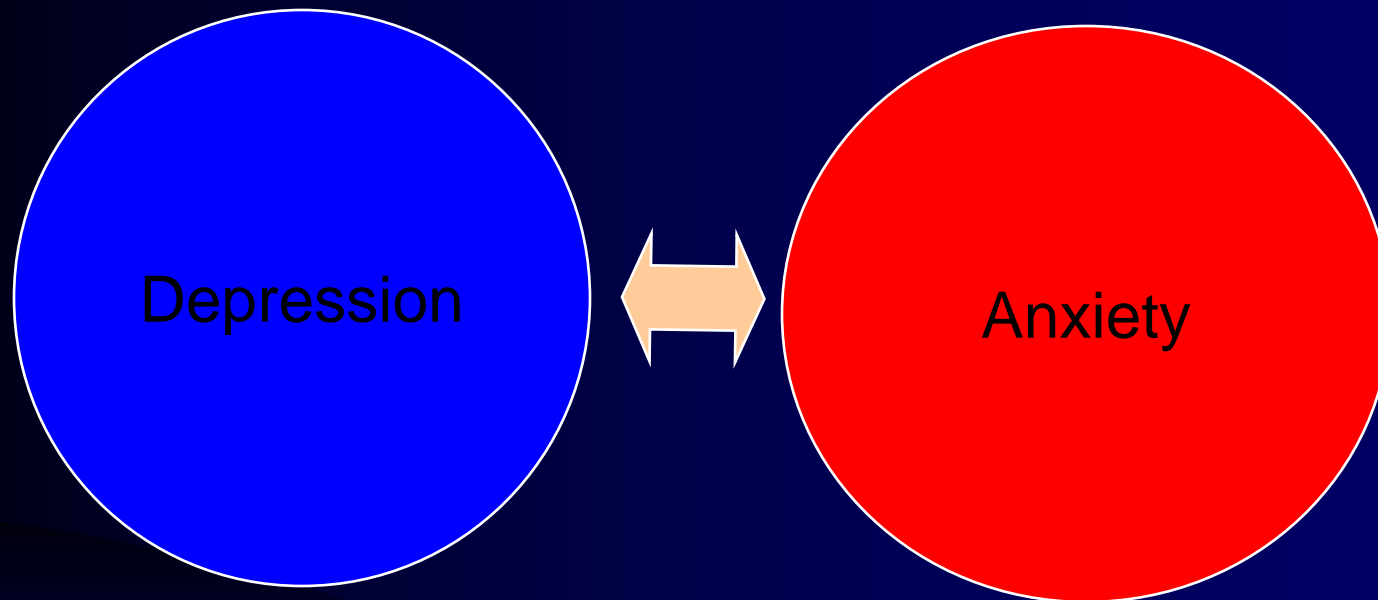
# Late Life Comorbid Anxiety & Neurological Illness

- When ill & anxious, usually have MDD:
  - Parkinsons w anxiety: 92% comorbid MDD<sub>a</sub>
  - Stroke w anxiety: 85% comorbid MDD<sub>b,c</sub>
- When anxious, usually GAD:
  - Stroke<sub>c</sub>: 1 in 4 GAD
  - Diabetes<sub>d</sub>: 1 in 5 GAD

a) Menza MA et al Biol Psychiatry 1993; 34:465-790; b) Starkstein SE et al Arch Gen Psychiatry 1990; 47: 246-51 c) Astrom M Stroke 1996;27 (2):270-5 ;d) Grigsby AB et al, J Psychosom Res 2002; 53 (6); 1053-60



# Comorbidities and Causes



## *Anxiety Disorders and Depression:*

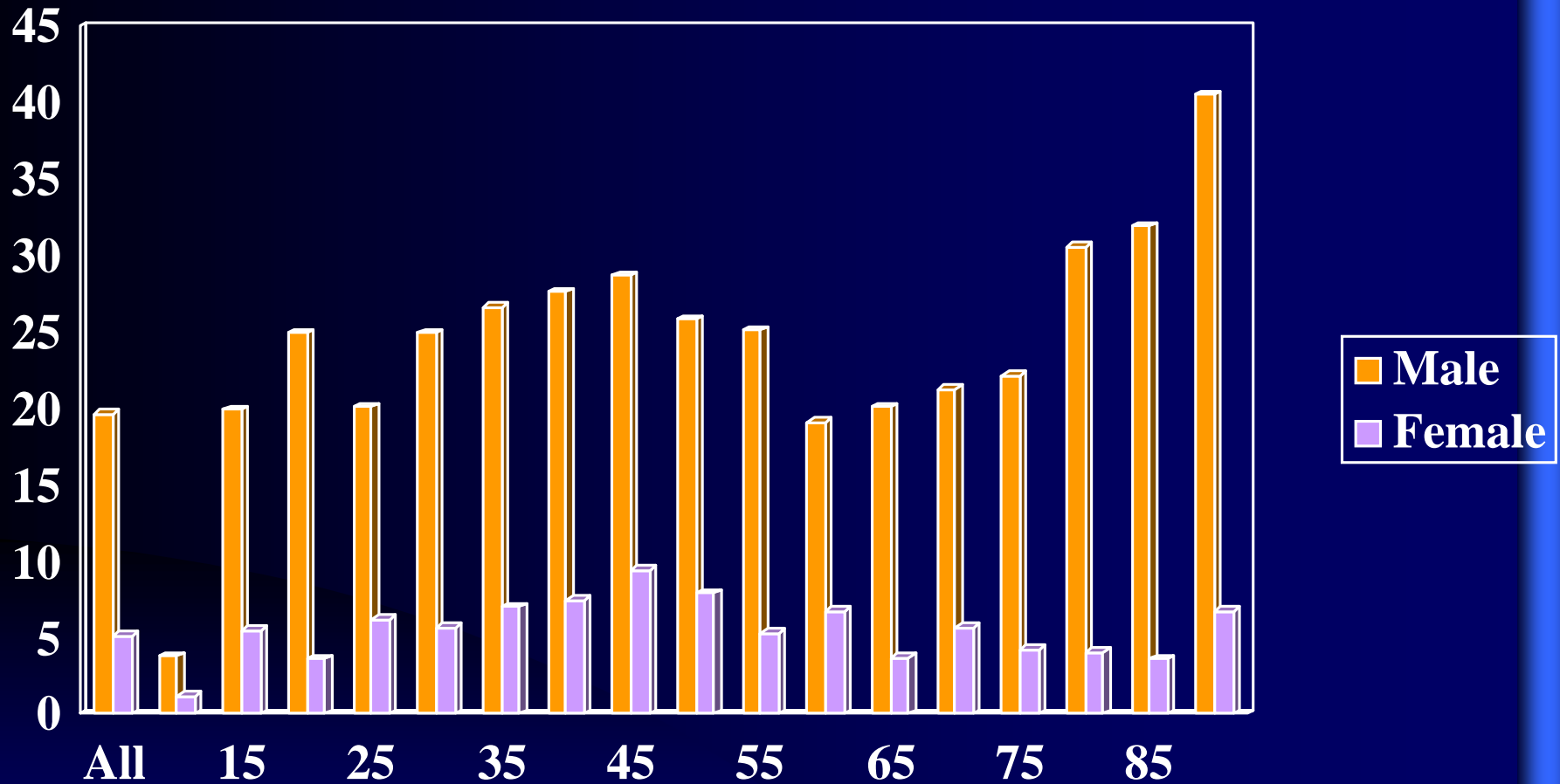
- Higher rates of anxiety disorders in late life MDD (34-50%)<sup>a,b</sup>
- High rates of MDD in elderly with anxiety disorders (26%)<sup>a</sup>

a) Beekman et al Am J Psych 2000: 157; b) Lenze et al J Affect Dis 2003:77

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# Canadian Suicide Rates: 1997



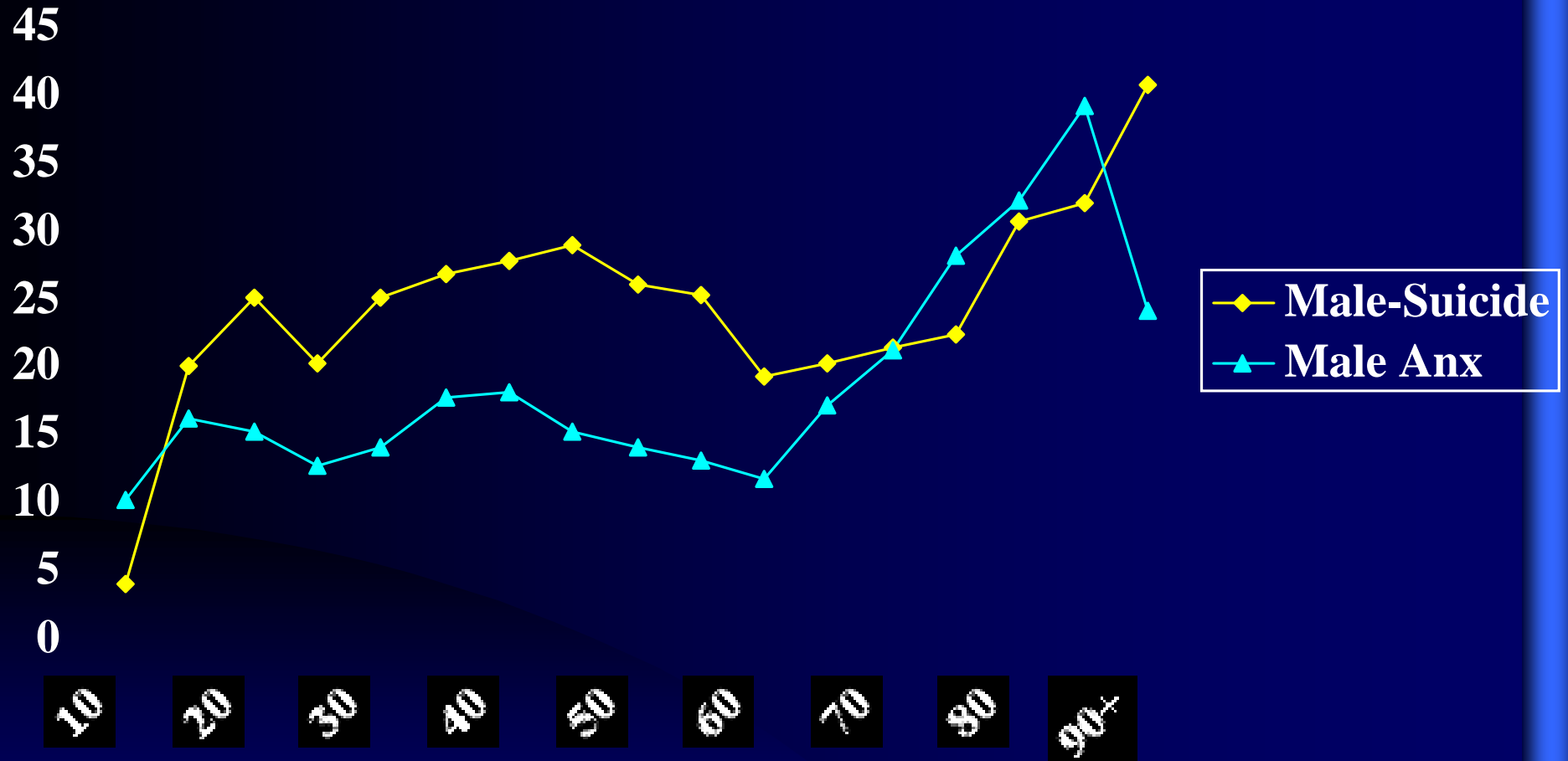
Statistics Canada: Mortality Summary List of Causes, 1997

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# Canadian Suicide Rates: 1997



Statistics Canada: Mortality Summary List of Causes, 1997

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# *Anxiety and Dementia:*

- Dementia patients have increased prevalence of anxiety (23-66%)<sub>a,b</sub>
- Anxiety may be related to MDD<sub>c,d</sub> (50% - 80% in dementia)
- Mild cognitive impairment: anxiety 10-45%<sub>e</sub>

a) Flint Am J Psychiatry 1994;151; 640-9 Wands K et al, J Am Geriatr Soc 1990: 38:535-8; b)Levy and Cummings, Gerontology 1999; 45. Ballard et al., Int J Geri Psych 1996; 11.; c) Jacoby R et al Br J Psychiatry 1980:136; 256-69; d) Jacoby R et al Br J Psychiatry 1980:136; 256-69; e) Sinoff, Int. J Geri Psych 2003: 18; Forsell et al., Acta Neurol Scand 2003: 107, suppl 179

## *Anxiety Disorders in Dementia:*

- Agitation is common, not always anxiety<sup>a</sup>
- Acutely: medical illness, pain, delirium
- Chronic: typical of dementia progression

a) Flint Am J Psychiatry 1994:151; 640-9 Wands K et al, J Am Geriatr Soc 1990:  
38:535-8

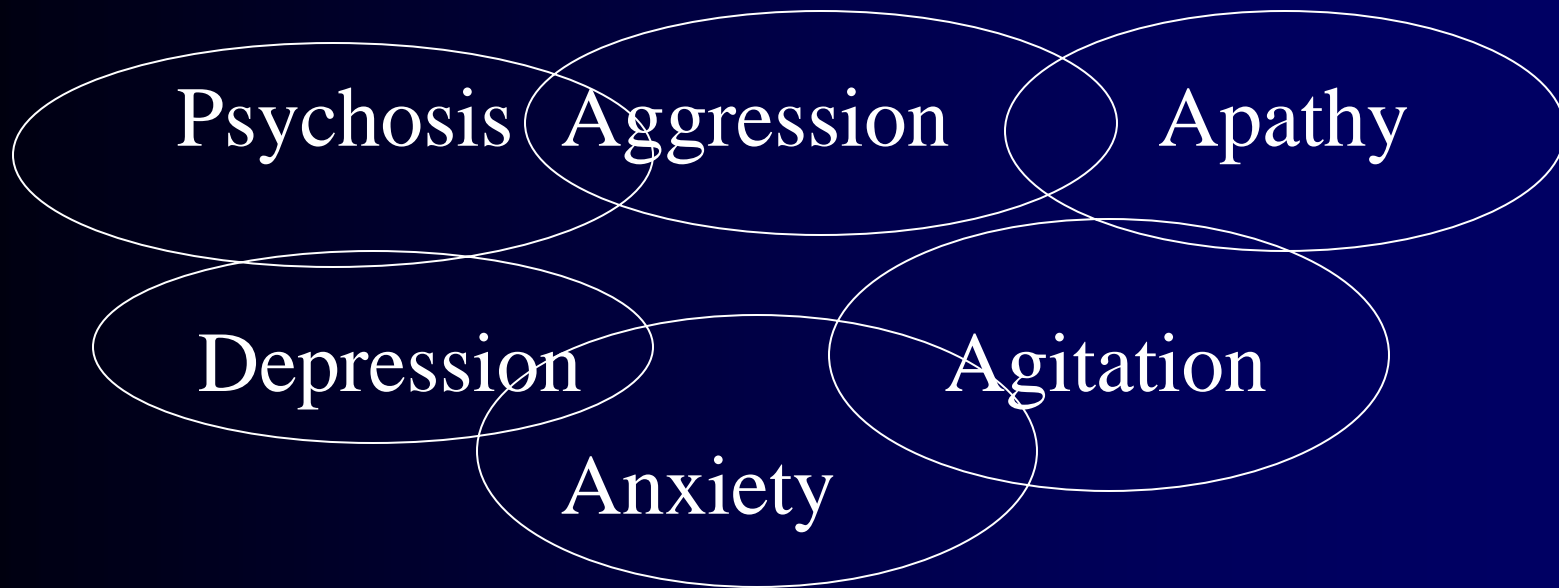
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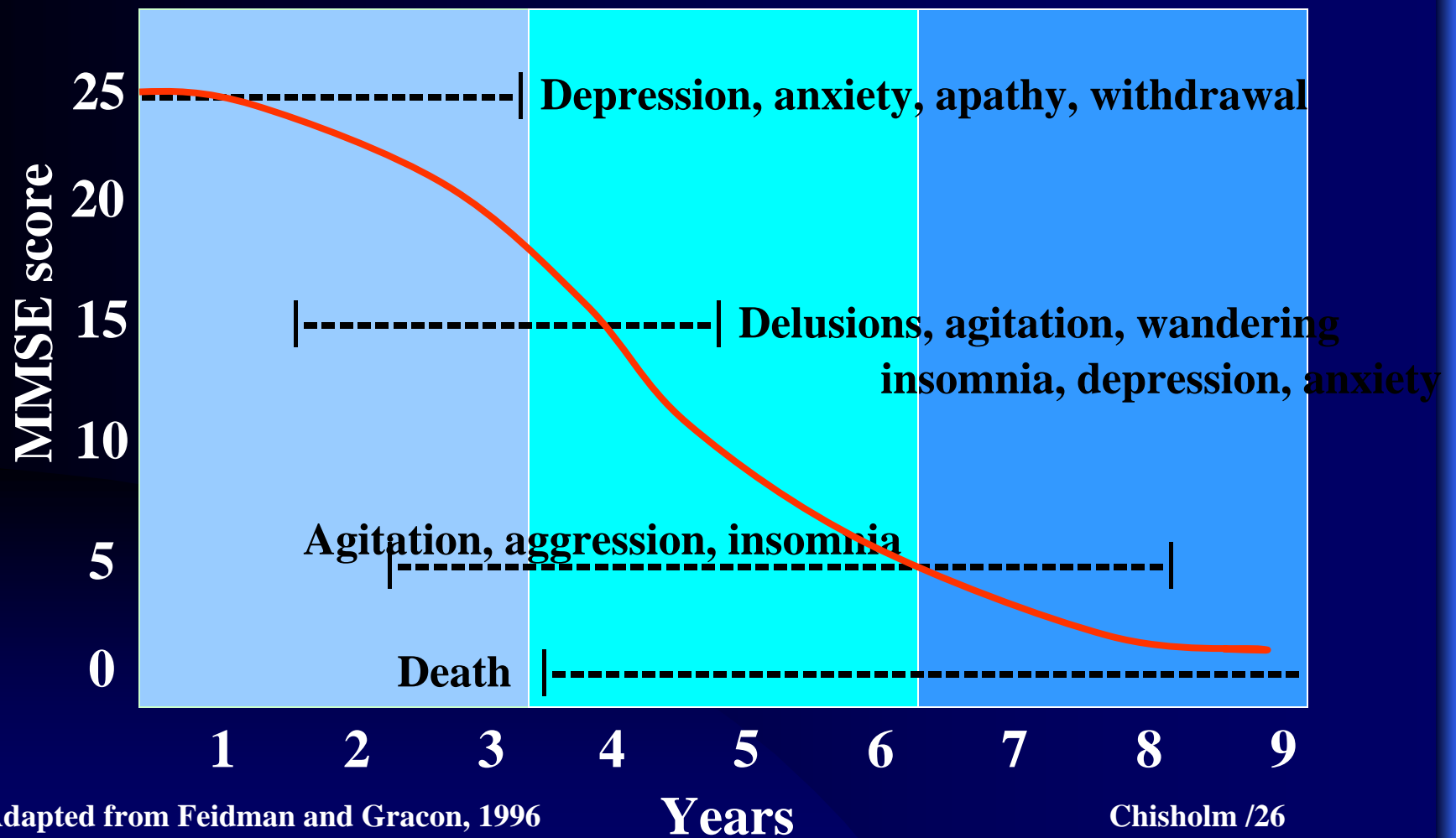
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# Behavioral and Psychological Symptoms of Dementia



# Alzheimer's Disease: Psychiatric symptoms



## *Anxiety Disorders in Vascular Dementia:*

- Higher prevalence, more severe anxiety in Vascular dementia vs. Alzheimer disease <sup>b</sup>
- Severity of Vascular Dementia= more anxiety<sup>a</sup>

(Similar to major depressive disorder)

a) Sultzer DL et al, Am J Psych 1993 Dec 150 (12): 1806-12; b) Ballard C et al J Affect Disord. 2000 Aug; 59 (2): 97-106

# *Anxiety Disorders in Late Life:* **Difficult to Diagnose**

- Sx overlap other psychiatric conditions:
  - Impaired sleep, concentration, attention, memory; agitation, disabling fear, hypervigilence
- Sx overlap with medical illness:
  - Chest pain, H/A, SOB, abdo pain, agitation
- *Anxiety is not always on the differential*
- Older patients report somatic > psychologic sx

# *Anxiety Disorders in Late Life:* Outline

- Epidemiology
- Comorbidity
- Diagnosis
- Treatment
- Case analysis, discussion

# *The Anxiety Disorders Family:*



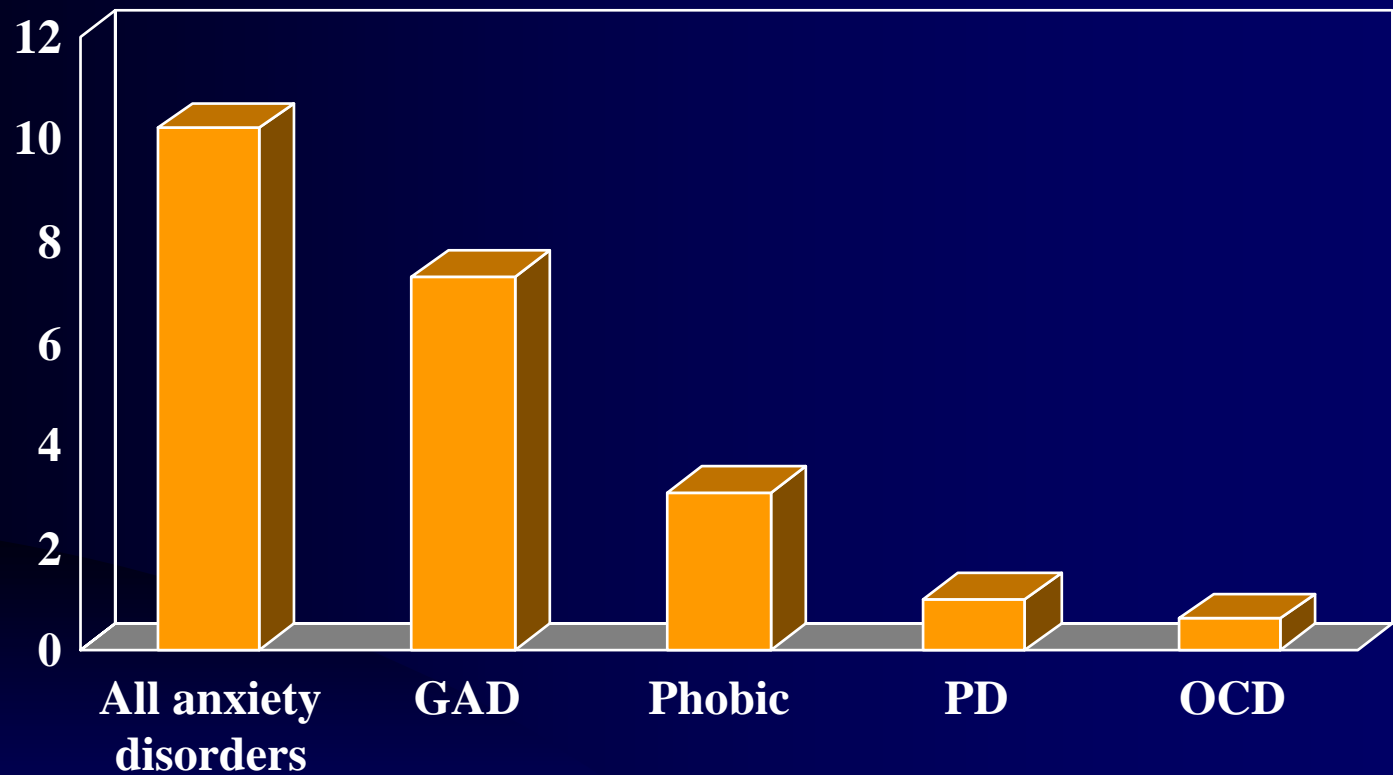
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# Anxiety disorders in later life: a report from the Longitudinal Aging Study Amsterdam.

Age: 55-85  
DX: DIS  
6 mo.



Beekman AT, et al. Anxiety disorders in later life: a report from the Longitudinal Aging Study Amsterdam. Int J Geriatr Psychiatry. 1998 Oct;13(10):717-26. Thorpe/31

# *Anxiety Disorders in Late Life:* **Common Disorders**

- **90% of anxiety due to Generalized Anxiety Disorder (GAD) and Phobias**
- **10%: OCD, PTSD, panic**

# *Anxiety Disorders in Late Life:* **Making the Diagnosis**

- **History:**
  - Early vs. late onset; comorbid depression
  - Recent traumatic events, triggers
  - Medical history, medications (EtOH)
- **Investigations:**
  - CBC, lytes, TSH, glucose, urinalysis, pulse oximetry, drug screen, ECG, CT
- **Observations: MSE & Use of Scales**

# *Anxiety Disorders in Late Life:*

## Use of Scales

- Gold Standards: Psychometric validity ? >65 y
  - SCID (Structured Clinical Interview)
  - ADIS-IV (Anxiety D/O Interview Schedule)
- Scales with geriatric norms<sup>a</sup>:
  - Hamilton Anxiety Rating Scale (GAD)
  - FEAR Survey (panic, phobia, GAD)
  - Clinician Admin. PTSD Scale (PTSD)
  - Y-BOCS (OCD)

a)Carmin CN et al, Current Psychiatry Reports 2000;2;13-9

# *Anxiety Disorders in Late Life:* Diagnosing Disorders

- *History* is key to diagnosis:
  - Include anxiety on the differential
  - Know what is common
  - Recognize the clinical features
  - Be aware of differences in late life

*Most Common:*

# GENERALIZED ANXIETY

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# *Anxiety Disorders in Late Life:*



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# *Anxiety Disorders in Late Life:*

## Diagnosing GAD

- Characterized by > 6 months:
  - Excessive worry: “What if’s” of life
  - Difficulty controlling worry
  - 3 or more: Restless, easily fatigued, difficulty concentrating, irritability, muscle tension, sleep disturbance (initial insomnia, or restless, unsatisfying sleep)
- Interferes with social/ occupational function



# *Anxiety Disorders in Late Life:*

## **GAD: Questions to Ask**

- “Are you a worrier? More than average?”
  - “What kinds of things do you worry about?”  
(Everyday concerns - the “what ifs” in life?)
  - “Is it hard to stop the worrying?”
  - “Do you worry so much that you get muscle aches, pains or other health problems?”
  - “Does worrying keep you from falling asleep, feeling rested at night?”
- **Scale: Hamilton Anxiety Scale (>20)**

# *Anxiety Disorders in Late Life:* Diagnosing GAD

- Up to 50% of all late life anxiety
- Majority (50-97%) are early onset with later exacerbations
- *“Nervous Nellies Live Forever”*

a) Ferretti et al J Geriatr Psych Neurol 2001 Spring; 14 (1): 52-8; b) McCurry SM et al J Geront Nurs 2004 Jan; 30 (1): 12-20

# *Anxiety Disorders in Late Life:*

## Diagnosing GAD

- Common anxiety symptoms in dementia:<sup>a, b</sup>
  - Tension, restlessness, fidgeting, agitation, sleep disturbance
  - Affective component: *Anxious or worried appearance, subjective fearfulness, wringing hands, “inconsolable”*
- Memory loss exacerbates worry:
  - Improves with a sitter, reassurance

a) Ferretti et al J Geriatr Psych Neurol 2001 Spring; 14 (1): 52-8; b) McCurry SM et al J Geront Nurs 2004 Jan; 30 (1): 12-20

# *Anxiety Disorders in Late Life:* GAD and Dementia

- Interrelation b/w anxiety & nighttime behavioral disturbance:<sup>a</sup>
  - N= 153 pts, moderate AD in community
  - Those who woke caregivers 1+ x/wk (29%) had OR 2.1 (CI 1.4, 2.9) of symptoms anxiety (56%)

a) McCurry SM et al J Gerontol Nurs 2004 Jan 30 (10 12-20).

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# *Anxiety Disorders in Late Life:* Depression & Generalized Anxiety

- New onset GAD usually occurs w MDD
- Late life Major Depression:
  - 20-40% have GAD (ECA) <sup>a,b</sup>
  - 75% have *subsyndromal* anxiety<sup>c</sup>
- Worse prognosis:
  - 50% more time to respond to treatment<sup>d</sup>
  - Incomplete recovery from depression<sup>e</sup>

a) Regier DA et al, J Psychiatr Res, 1990 24 (Suppl 2): 3-14; b) Blanchard MR et al Br J Psychiatry 1994: 164;396-40;c)Ben- Arie O, Br J Psychiatry 1987: 150: 169-74; d) Mulsant BH et al, Anxiety 1996:2;242-7; e) Blazer DG et al, Int J Geriatr Psychiatry 1989; 4: 273-8;

*Most Common:*

**PHOBIAS**

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# *Anxiety Disorders in Late Life:*

## Diagnosing Phobias

- Characterized by:
  - Persistent irrational fear of a situation, object or activity; desire to avoid phobic stimulus
- New onset phobia >65:
  - Agoraphobia is most common (up to 80%) <sup>a,b</sup>
- FEAR Survey

a) Lindesay J Br J Psych 1991; 159; 531-41: b) Livingston G J of Aff Dis 1997;46;255-62

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## *Anxiety Disorders in Late Life:*

### **Phobia: Questions to Ask**

- *Agarophobia*: “Do you have anxiety about leaving your home? being in crowds? fear you’ll be unable to get help?”
- *Social phobia*: “Are you a shy person? Do you avoid parties, other social situations? Fear that you will be judged or not liked by others?”
- *Specific*: “Is there one thing you’re very afraid of, such as heights, storms? Does that fear prevent you from doing things?”



# *Anxiety Disorders in Late Life:* **Diagnosing Agoraphobia**

- Younger patients agoraphobia = after panic
- >65 y different from younger patients
  - Types: Agoraphobia > social > specific
- *Few elderly with agoraphobia report panic:*
  - Agoraphobia occurs after a traumatic event: medical illness, falls, muggings<sup>a</sup>
  - Fear of being unable to escape/ get help

a) Osman TE et al, Gen Hosp Psychiatry 1987; 9: 167-73

# Anxiety, Fears, and Falls

- Prevalence of fear of falling in 30-77% of seniors who have fallen (average 50%)<sup>a</sup>
- Depression, anxiety disorders, severity of disorders have independent associations with fear of falling <sup>a</sup>
- Fear of falling leads to / worsen depression, impedes recovery <sup>b, c</sup>

a) Gagnon N Am J Geriatr Psych 13:1 2005: 13; 7-14 b) Kreissig et al JAGS 2001: 49;c) Scaf-Klomp et al. Age and Aging 2003: 32

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Scaf-Klomp et al, Age and Aging  
2003: 32

*Least common < 10%:*

**Panic, OCD, PTSD**

# *Anxiety Disorders in Late Life:*

## Diagnosing Panic

- Episodic overwhelming “body” anxiety (4+/13 symptoms)
- *Different from younger patients:*
  - Fewer sx, less avoidance, more SOB <sup>a</sup>
- 85% comorbid illness:
  - COPD, vertigo, Parkinsons, MDD (40-52%)<sup>b</sup>
- FEAR Survey

a) Sheikh JI et al, Am J Psychiatry 1991: 148; 1231-3; b) Raj BJ et al, J Clin Psychiatry 1993: 47: 21-30

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Late Life Anxiety

Cassidy/50

## *Anxiety Disorders in Late Life:*

### **Diagnosing OCD**

- Rare in late life, usual onset < 40 y<sub>a</sub>:
  - Institutionalized > living at home<sub>b</sub>
  - Medical illness, dementia, delirium
- *Differs from younger patients:*
  - Themes: sins, religion > infections, AIDS<sub>c</sub>
  - In Dementia: Hoarding, rigidity about toileting needs, medication schedule
- Scales: Y-BOCS

a) Flint AJ, Am J Psychiatry 1994; 159: 640-9 b) Bland RC et al Acta Psychiatrica Scand 1988: Suppl 330; 57-63; c) Kohn R et al, Am J Geriatr Psychiatry 1997: 5;211-5

## *Anxiety Disorders in Late Life:*

### **Diagnosing PTSD**

- Symptoms: Reexperiencing, avoidance & numbing
  - Incidence=across lifespan (after disasters)<sup>a</sup>
- Holocaust survivors, POWs, war veterans <sup>b,c</sup>
  - 70% are chronic, persist in late-life
- Traumatic events can trigger PTSD <sup>SX<sub>b,c,d</sub></sup>
  - War, bereavement, illness, retirement<sup>a</sup>
  - Memory loss exacerbates symptoms
  - PTSD Scale

a) Livingston HM et al Int J Geriatr Psych 1994: 989-94; b) Kaup BA et al Am J Geriatr Psych 1993: 2; 239-43;  
c) MacLeod AD Aust NZ J Psych 1994: 28; 625-34; d) Robinson S Br J Med Psychol 1994: 67;353-62

# *Anxiety Disorders in Late Life:* Outline

- Epidemiology
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# *Anxiety Disorders in Late Life:*



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# *Anxiety Disorders in Late Life:* **Treating Anxiety Disorders**

- Historical lack of attention, research *sparce*
- Guidelines for >65y are not based on RCT's
- Krasucki 1999 review<sup>a</sup>:

*“The advice given... far outstrips the evidence and is presumably based on ... extrapolation from research with younger age groups...”*

a) Krasucki C et al, Int Psychogeriatrics 1999: 11;25-45

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# *Anxiety Disorders in Late Life:*

## **Treating Anxiety Disorders**

- Carmin et al. 2000 review<sup>a</sup>:

*“There have been no recently published controlled studies examining pharmacotherapy for anxiety disorders in the elderly...”*

- Lenze 2001 review<sup>b</sup>:

*“There are no published controlled trials of antidepressant medication for geriatric anxiety disorders... (open label only)”*

a) Carmin CN et al, Current Psychiatry Reports 2000;2;13-9; b) Lenze EJ Depression and Anxiety 2001;14; 86-93

## *Anxiety Disorders in Late Life:*

- Current practice: Benzodiazepines



# *Anxiety Disorders in Late Life:* **Benzodiazepines**

- Eg. Lorazepam, Diazepam, Oxazepam
- Overused in late life anxiety<sup>a</sup>
- 33% of NS women are currently prescribed benzodiazepines

a) Copeland JR et al, Br J Psych 1996;11;65-70

January 26th, 2005

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Cassidy /58

# *Anxiety Disorders in Late Life:* Risks of Benzodiazepines

- Incontinence<sub>a</sub>
- Confusion
- Long-term effects on cognition<sub>b</sub>
- Can impede the treatment of anxiety

AND

a) Copeland JR et al, Br J Psych 1996;11;65-70; b) Barker MJ et al, CNS Drugs 2004; 18 (1): 37-48

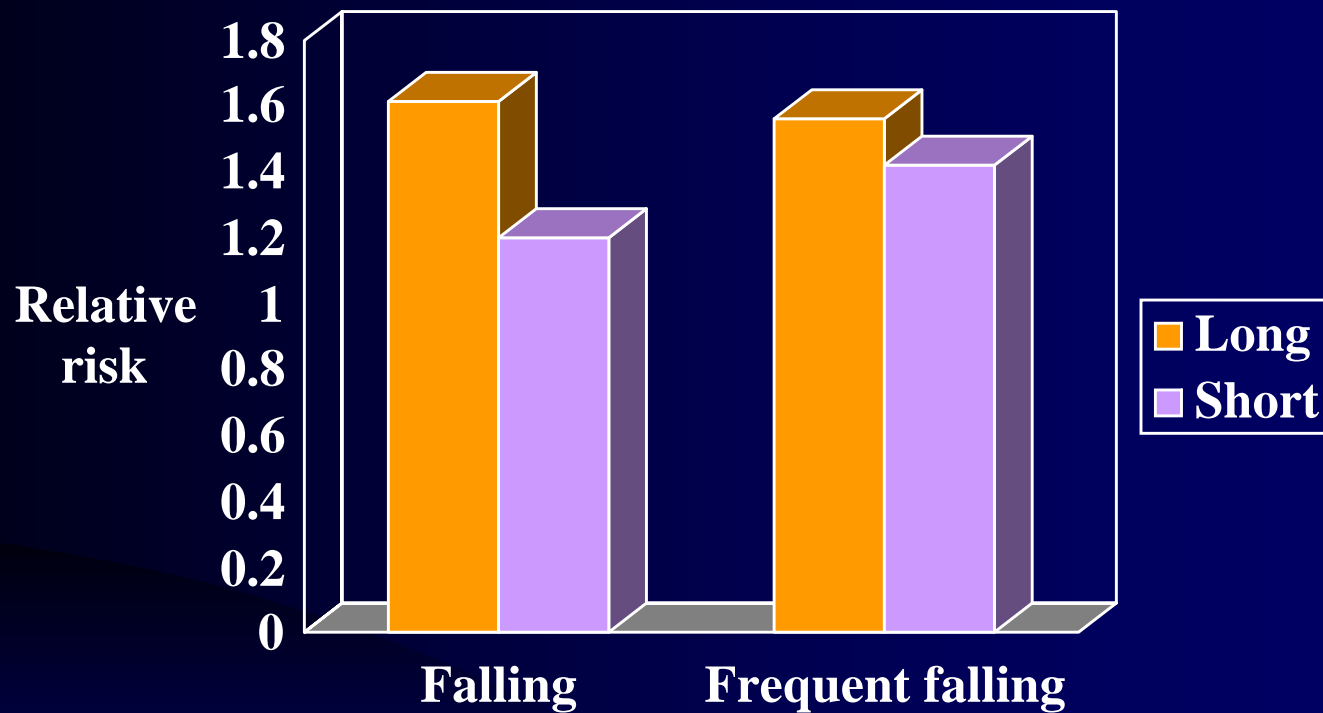
# *Anxiety Disorders in Late Life:*



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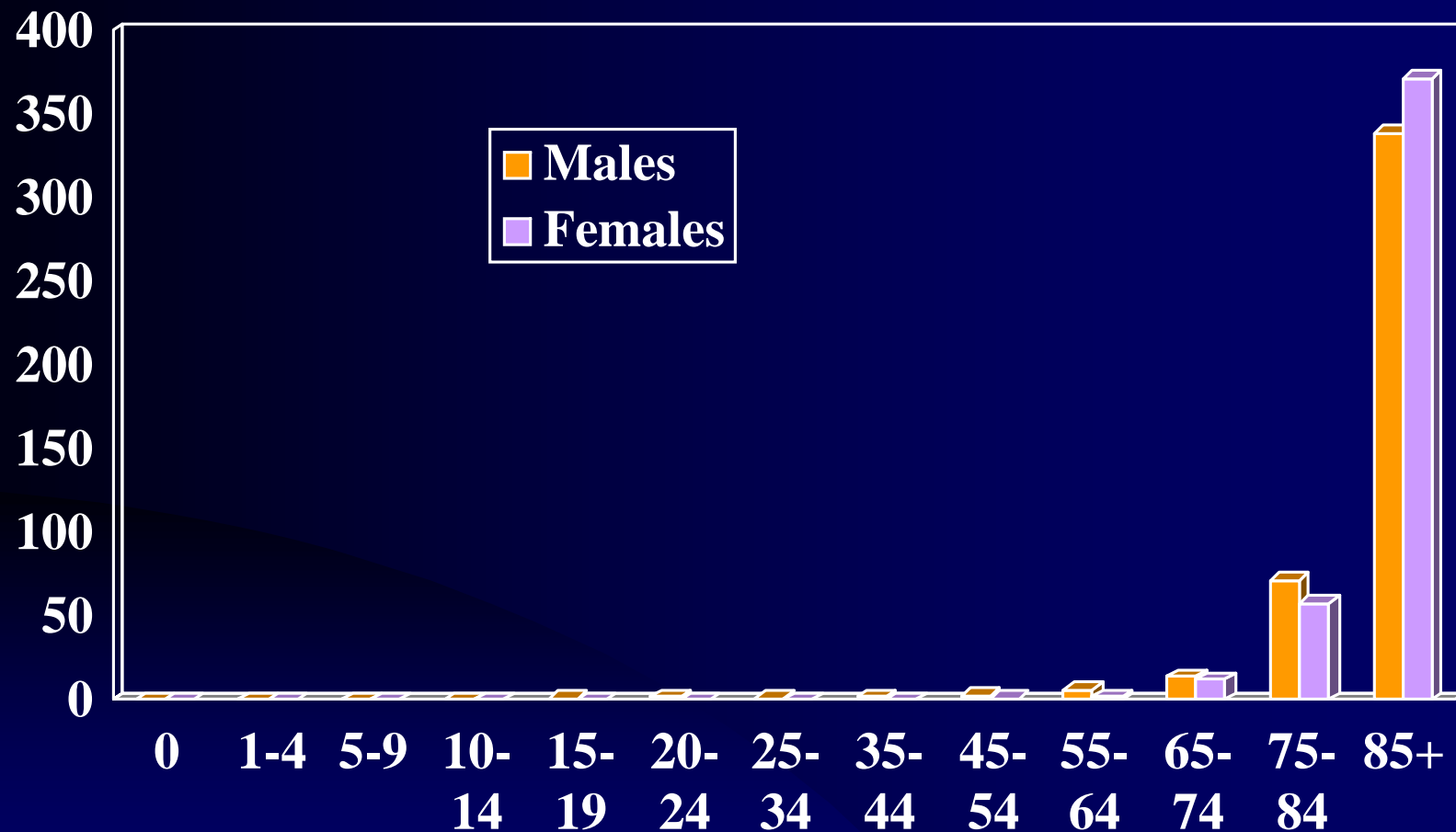
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# Associations between current use of long-acting and short-acting benzodiazepines and risk of falls. (Relative risk)



Ensrud K. Central Nervous System-Active Medications and Risk for Falls in Older Women. JAGS 2002;50(10):1629-1637 Thorpe/61

# Death Rate From Falls per 100,000 by Age and Sex (Health Canada, 1996-7).





# CANMAT 2000 Guidelines for Pharmacologic Treatment of Anxiety

	<b>GAD</b>	<b>PHOBIA</b>	<b>PTSD</b>	<b>OCD</b>	<b>PANIC</b>
<b>1st LINE</b>	SSRI* SNRI* Buspar*	SSRI RIMA	SSRI TCA?	SSRI* TCA?	SSRI* SNRI
<b>2<sup>nd</sup> LINE</b>	TCA	SNRI	SNRI MAOi	SNRI SARI	TCA
<b>3<sup>rd</sup> LINE/ Adjunct</b>	Benzo	Benzo MAOi	Benzo Epival Clonidin	Benzo D2-Block Neurontin	Benzo MAOi

\*= Some evidence >65y; 1st line= Level 1 evidence/ tolerated (mixed age)

# Treatment Studies for Anxiety Disorders in Late Life

Sample	Agent	Author	Duration weeks	N	Age	Results
Mostly GAD	Fluvoxamine	Wylie et al 2000	21	19	>50	Effective in 66% of completers
Mostly GAD	Citalopram	Lenze et al 2003	8-16	34	>60	>PBO
Secondary to neurotic depression	Buspirone	Bohm et al 1990	4	40	>65	>PBO
Mostly GAD	Oxazepam	Koepke et al 1982	4	220	>60	>PBO

*Anxiety Disorders in Late Life:*  
**Venlafaxine XR in Late Life GAD**

- Katz et al. 2002:
- Meta-analysis of 5 controlled trials a:
  - N=136 Effexor XR; N= 47 Placebo
  - HAM-Anxiety Score weeks 8, 24
- Venlafaxine XR for GAD in elderly
  - Equal effect to younger patients
  - Effective treatment for late life GAD

a) Katz IR et al J Am Geriatr Soc 2002 Jan 50 18-25

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# *Anxiety Disorders in Late Life:* Citalopram in Late Life GAD

- Lenze 2005:<sup>a</sup>
- 1st prospective controlled trial of SSRI in late life anxiety (mostly GAD) >60 years
  - N=36 assigned to Citalopram or placebo
  - Response= 50% reduction HAM-A Score
- Response 65% Citalopram (vs 24%), at 8 wks
  - Most common side effect was sedation

a) Lenze EJ et al. Am J Psych 2005; 162: 146-150

## *Anxiety Disorders in Dementia:*

- Citalopram vs Placebo:
  - N=98 moderate AD or VaD, DBPC
  - Improvement in anxiety, fear/ panic, restlessness, irritability (and depression) after 4 weeks in AD
  - Not improved in VaD vs. placebo

Nyth & Gottfries Br J Psych 1990; 157: 894-901

January 26th, 2005

Late Life Anxiety/ 2005

Cassidy /67

# *Anxiety Disorders in Dementia:* **Cholinesterase Inhibitors**

- Donepezil: improves anxiety in AD <sup>a</sup>
  - N=290, mod-sev AD (MMSE 5-17)<sup>b</sup>
  - 5-10 mg, improved anxiety, irritability at 24 wks (vs placebo)
- Galantamine: improves anxiety in AD <sup>c</sup>
  - N=124, mild-mod AD
  - 8-24 mg, improved anxiety, aberrant motor & night-time behavior >30% at 12 wks

a) Tanaka M et al J Neurol Sci 2004 Oct 15; 225 (1-2): 135-41; b) Gauthier S et al Int Psychogeriatr 2002 Dec 14 (4): 389-404; c) Monsch AU et al Curr Med Res Opin 2004 Jun; 20 (6): 931-8

# Pharmacologic Treatments of Anxiety Disorders All Ages: Controlled Trials\*

	TCA	SSRI	MAOi	SNRI	Benzo	Buspar
<b>PANIC</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
<b>GAD</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>OCD</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<b>PTSD</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
<b>PHOBIA</b>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	

\*= mixed age populations       = established efficacy

# *Anxiety Disorders in Late Life:* **Other Treatment Options**

- Buspirone (for GAD)<sup>a</sup>
  - Partial 5HT agonist
  - Tx 15-30 mg tid
  - No withdrawal
- Mirtazapine<sup>b</sup>
  - 5HT, Alpha agonist
  - Tx 30-45 mg
  - Sedation, wgt gain
- Trazodone (insomnia)
  - 5HT agonist
  - Tx 25-300 mg hs
- **Avoid:**
  - Wellbutrin; Ritalin
  - Nefazodone (liver failure)

a)Steinberg JR Drugs and Aging 1994 5 (5); 335-45; b) Schatzberg AF et al, Am J Geriatr Psychiatry 2002; 10 (5); 541-50



# Geriatric Medications: Newer Ideas

- Neuroleptics for refractory OCD<sub>a</sub>:
  - Risperidone, olanzepine, haldol, quetiapine
  - 46-71% response rate (vs. none with PBO)
- Topiramate augmentation in OCD<sub>b</sub>:
  - Benefit 2/3rd of patients with OCD who did not respond to SSRI alone, or + neuroleptic
  - Side effects: weight loss, sedation, word-finding difficulties, paresthesias

a)Sareen J et al. J Aff Disord 2004; 82 (2):167-74; b) Van Amerigan, Psychiatry Update 2004

January 26th, 2005

Late Life Anxiety/ 2005

Cassidy /71

# Geriatric Medications: General Principles

Start low, Go slow, *Aim high*, Treat long

.... especially for anxiety disorders

More somatic sx means higher dropout rate.

# *Anxiety Disorders :*

## Gold Standard Treatment

- Cognitive Behavioral Therapy
- #1 most approach to most anxiety disorders
  - Most commonly used strategy in children
- Exposure & response prevention:<sup>a</sup>
  - Gold standard treatment of avoidance and catastrophic reactions found in anxiety (panic, agoraphobia, social phobia, PTSD)

a) Marks I Br J Psych 1998: 153; 650-8

January 26th, 2005

Late Life Anxiety/ 2005

Cassidy /73

# Controlled Trials of GAD in older adults

Agent	Author	Duration weeks	N	Age	Efficacy
Individual CBT	Barrowclough 2001	12	85	>60	CBT>supportive @ 12 mo
Individual CBT	Stanley 1996	14	48	>55	CBT = supportive
Enhanced CBT	Mohlman et al 2003	13	15	>60	N too small
Primary care CBT	Stanley et al 2003	8	12	>62	CBT > usual care
CBT	Stanley et al 2003	15	85	>60	CBT > wait list
Group CBT	Wetherell & Gatz 2003	12	75	>55	CBT>discussion > W/L (large effect)

## *Anxiety Disorders in Late Life:*

# CBT for Insomnia

- CBT<sub>a</sub>: stimulus control (bed only for sleep), sleep restriction (no napping), sleep hygiene, relaxation
- Cochrane review<sub>b</sub>: CBT for sleep problems in adults 60 years +
  - 6 trials, 282 pts with insomnia; Mild effect size

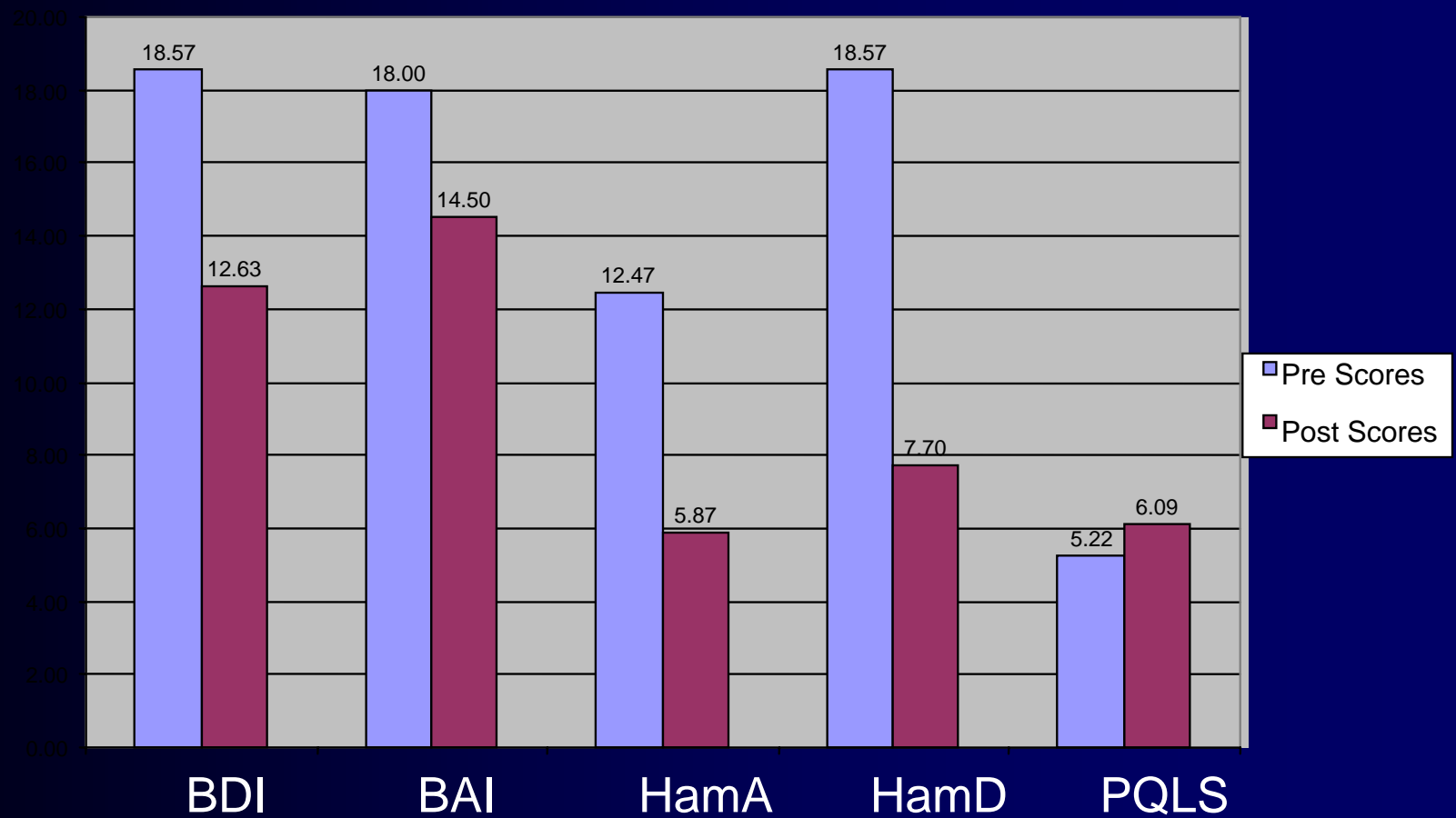
# *Anxiety Disorders in Late Life:*

## Treatment with CBT

- Seniors Mental Health Day Program:
  - Depressed & Anxious Elderly >65 y
  - Without cognitive impairment
- Evidence based treatments:
  - Cognitive Behavioral Therapy (CBT)
  - Relaxation therapy
  - Healthy living & Grief groups

# Seniors Day Program: CBT

Jan - Dec 2004    3 Groups, N=14



# CBT for Anxiety

## Cognitive Triad of Anxiety:

- Self: “I am helpless”
- World: “The world is dangerous”
- Future: “The future is uncertain”



# CBT for Anxiety

## Behavioral Driver of Anxiety: AVOIDANCE

*Avoidance--> alleviates symptoms short term*



*Increased symptoms at next exposure*



*More avoidance, decreased function/ coping*

# CBT for Anxiety

## Techniques:

- **COGNITIVE** :Modify distortions
  - “What’s the worst that could happen?” “What were you most afraid of?” “What is bad or harmful about thinking that way?”
- **BEHAVIORAL**: Graded exposure
  - Set specific goals/ behavioral experiments, breathing techniques reduce sympathetic activity

# CBT and Benzodiazepines

Benzodiazepines: do reduce anxiety symptoms

- Patients like them!!
- BUT impede treatment of the anxiety:
  - Cognitive impairment
  - Withdrawal symptoms
  - *A form of avoidance*

# *Anxiety Disorders in Late Life:* Outline

- Epidemiology
- Comorbidity
- Diagnosis
- Treatment
- Case discussion

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- ID: 71 year old widow, lives alone
- HPI: Presents to ER for 3rd time in 1 month with sudden onset of chest pain, SOB, weakness
- Several falls in past 2 months
- Medical history: hypertension, past MI, atrial fibrillation, arthritis

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Medications: atenolol, nitro spray, ASA, alprazolam, lorazepam
- Ddx: atrial fibrillation, MI, ?strokes
- Acute coronary ruled out in ER-> discharged
- Referred to Geriatric Assessment Unit to investigate/ treat falls and “episodes”

*Anxiety Disorders in Late Life:*  
Case: Ms. J. Itters

Questions:

What is the differential diagnosis?

What else do you want to know?

## *Anxiety Disorders in Late Life:*

### **Panic: Questions to Ask**

- “Do you ever have sudden, overwhelming anxiety that you feel in your body, feel as though you’re losing control?”
- “What happens/ what do you feel/ where?”  
(SOB, chest pain, palpitations, numbness, etc. )
- “How long does it last? (< 10 min) How often?”
- “Does a fear of having another episode prevent you from going out?”



# *Anxiety Disorders in Late Life:*

## Case: Ms. J. Itters

- Episodes occur in mornings
- Last 10 minutes- better with ativan
- SOB, chest/ throat tightness, choking sensation, palpitations, sweating, light headed, feels she's losing control, might die
- Not going out as much, related to the fear of falling and not being able to get help

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Daughter- collateral history
  - Widowed, husband died 8 months ago, tearful, sad
  - Always had “bad nerves” (Alprazolam x 20 y)
- Anxiety much worse in last year: restless sleep, worried all the time, fearful
  - Alprazolam 1 mg hs x 20 yrs, increased to 2 mg hs x 4 mo
  - Lorazepam (0.5 mg hs) 1-2 prn x 2 mo

*Anxiety Disorders in Late Life:*  
Case: Ms. J. Itters

Questions:

What else is included on the differential diagnosis now?

What else do you want to know?

## *Anxiety Disorders in Late Life:*

### **GAD: Questions to Ask**

- “Are you a worrier? More than average?”
  - “What kinds of things do you worry about?”  
(Everyday concerns - the “what ifs” in life?)
  - “Is it hard to stop the worrying?”
  - “Do you worry so much that you get muscle aches, pains or other health problems?”
  - “Does worrying keep you from falling asleep, feeling rested at night?”
- **Scale: Hamilton Anxiety Scale (>20)**

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Always a “worrier”, much worse in past year, now incapacitating
  - Initial insomnia, worries about health/future/finances
  - Can’t decide what to wear, doesn’t dress, spends x4 hrs a day wringing her hands
  - Pains in back, tension headaches, more arthritic pain

# *Anxiety Disorders in Late Life:* **Agarophobia**

- Fear of going outside related to falls
- Since recent falls, afraid of going up/down stairs
- Fearful of leaving the home in case she falls and can't get help
- Function much reduced
- Deconditioned

*Anxiety Disorders in Late Life:*  
**Depression: Questions to Ask**

Mood -depressed? (5/ 9 symptoms x 2 weeks)

- Sleep- early am waking?
- Interests- loss of usual interests, hobbies?
- Guilt- feeling of low self worth?
- Energy- restless, or fatigued?
- Concentration- to read? Watch TV?
- Appetite- change? Loss of weight?
- Suicidal- future hopeless? Suicide?

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Her husband died suddenly 8 months ago
- Sad, tearful, not socializing, 10 lb weight loss, trouble falling asleep, early morning waking
- Less sad & tearful x 3 mos, still not “herself”
- Insomnia better with benzodiazepines
- “Nerves” are the biggest problem

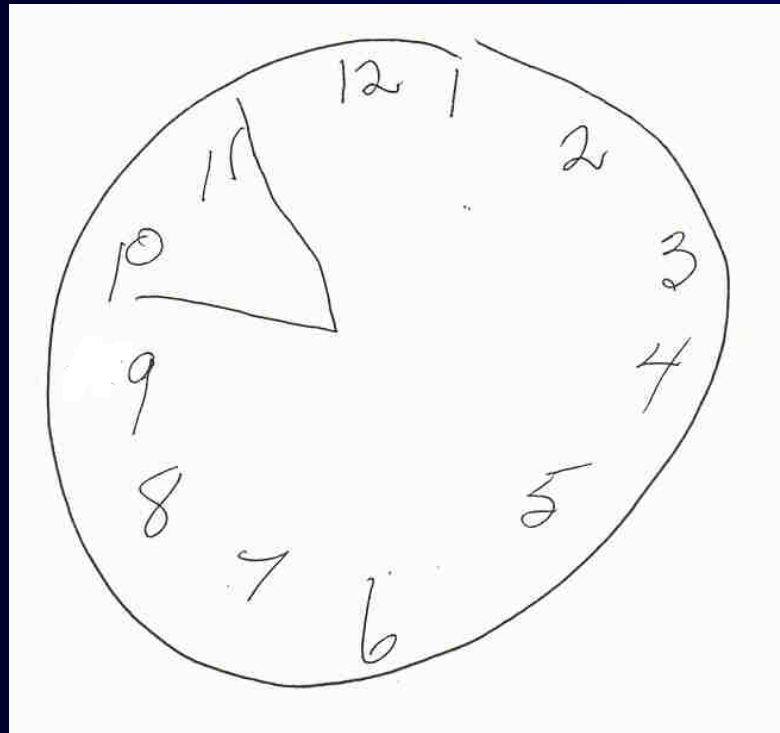


# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Memory decline in past year: more forgetful, confused
- MSE: Thin woman, good eye contact, psychomotor agitated, affect- anxious, sad/tearful
- MMSE: 25/30 (1/3 recall)
- Clock- organized, hands misplaced

# *Anxiety Disorders in Late Life:* Case: Ms. J. Itters



“10 past 11”

# *Anxiety Disorders in Late Life:*

## **Case: Ms. J. Itters**

- Scales: GDS 6/15 (mild) ; HAM-A: 30 (>20 significant)
- Investigations:
  - EKG normal
  - BW: CBC, lytes, BUN, Cr, LFT's, TSH  
glucose normal, cholesterol elevated
  - CT: leukoariosis, atrophy in keeping with age

*Anxiety Disorders in Late Life:*  
Case: Ms. J. Itters

What is the differential diagnosis?

# *Anxiety Disorders in Late Life:*

## Case: Ms. J. Itters

- Ddx:
  - Major depressive disorder, anxious features
  - Generalized anxiety disorder
  - Panic disorder
  - Agoraphobia
  - Cognitive impairment, due to ?depression, benzodiazepines, dementia
  - Falls ?due to benzodiazepines

*Anxiety Disorders in Late Life:*  
Case: Ms. J. Itters

What are the treatment options?

# *Anxiety Disorders in Late Life:*

## Case: Ms. J. Itters

- In GAU, start an SSRI: Celexa 20 mg od
- Reduce benzodiazepines: ativan stopped
- Returns in 2 days with nausea, diarrhea, insomnia, anxious, feeling much worse.
- Consult to psychiatry

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Psychiatry resident:
  - Celexa 5 mg od x 1 week, 10 mg
  - In 2 weeks- Celexa increased to 20 mg
  - Consolidates ativan 1 mg hs, alprazolam 2 mg hs to equivalent dose of clonazepam (0.5 mg + 1 mg , divided dose), taper later
- In 1 month, no panic symptoms, start taper benzodiazepine



# *Anxiety Disorders in Late Life:*

## Case: Ms. J. Itters

- Taper benzodiazepine: by 0.25 mg/ month
- In 4 months, using 0.25 mg am, 0.5 hs
- Still having initial insomnia, not rested
- Worry, indecision, HAM-A: 25

# *Anxiety Disorders in Late Life:*

## *Case: Ms. J. Itters*

- Increase Celexa to 30 mg od (10 mg am 20 mg hs)
- CBT group for 10 weeks. By the end:
  - Clonazepam 0.25 hs
  - No further falls
  - HAM-A: 17
  - MMSE: 29-30 (3/3 recall), normal clock

# *Anxiety Disorders in Late Life:*

## **Key Points**

- Epidemiology:
  - #1 disorder, Comorbidity is the rule
- Diagnosis:
  - Look for symptoms, 90% are phobias (agoraphobia) & GAD, know different presentations
- Treatment:
  - Treat underlying depression/ medical illness if present/ remove offending agents

# *Anxiety Disorders in Late Life:*

## **Key Points**

- Treatment Strategy:
  - Avoid autonomic/ cognitive toxicities, physical dependence and drug interactions
  - Benzos overused, antidepressants underused
  - Medications: start low, go slow, aim high
  - CBT is gold standard, decreases benzodiazepine use and targets insomnia

# *Anxiety Disorders in Late Life:*

## Future Directions

- More research is needed:
  - Impact of phenomenology, physiology & treatment on anxiety disorders in late life
  - Measures that are sensitive to evolution of anxiety over lifetime
  - Controlled trials to guide management
- Better detection & treatment

# *Anxiety Disorders in Late Life*



January 26th, 2005

Late Life Anxiety/ 2005

Cassidy /108

# CBT Reading List

- **Workbooks:**
  - Craske M, Barlow D, O'Leary T. Mastery of your anxiety and worry. San Antonio TX, The Psychological Corporation, 1992.
  - Greenberger and Padesky, Mind Over Mood. Etc...
- **Techniques:**
  - DeVreis H, Coon D., Cognitive behavioral group therapy with older adults, in Comprehensive Handbook of Psychotherapy, Vol 2: Cognitive Behavioral Approaches. Ed Kaslow FW, Patterson T. New York, Wiley 2002; 547-67.
  - Grant R., Casey D. Adapting cognitive behavioral therapy for the frail elderly, Int Psychogeriatr 1995 Winter; 7 (4):561-71.
  - Knight B, Satre D., Psychotherapy with older adults. Clin Psychol; Sci Prac 1999; 6:188-203.