DEPRESSION AND ANXIETY IN THE ELDERLY AND MEDICALLY ILL:
New Data, New Concepts, New Tools, New Models

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<table>
<thead>
<tr>
<th>Company</th>
<th>Speaker’s Bureau</th>
<th>Research Grants</th>
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<tr>
<td>Bristol-Myers-Squibb</td>
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<td>Cephalon</td>
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<td>Lilly</td>
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<td>Pfizer</td>
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<td>Wyeth</td>
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- Dr. Christopher Dennis, CME Scientific Chair & V.P, Medical/Clinical Director
- Sabrina Houser, Ph.D., V.P, Provider Relations
- Tracy Hubbard, Comm. Mgr, Provider Relations
NEW DATA, NEW CONCEPTS, NEW TOOLS, NEW MODELS

- Health Services Issues
- Complexities of Assessment
- Selected Disorders
- Mechanisms/Relationships
- Treatments
- New Concepts/New Disorders
- New Tools
- New Treatment Models
MANAGEMENT OF MENTAL DISORDERS IN PRIMARY CARE

“De Facto” Mental Health Care System

- 17% specialty mental health
- 11.5% other
- 3% both generalists and specialists
- 18.5% general medical sector
- 50% not seen for mental disorders

Prevalence of significant mental disorders: 28.1%

Regier, Arch Gen Psych, 1993
**PREVALENCE**
(adult data -- very little data on the elderly)

<table>
<thead>
<tr>
<th>Disorder</th>
<th>12 Months (%)</th>
<th>Lifetime (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major depression</td>
<td>10</td>
<td>17.1</td>
</tr>
<tr>
<td>Social anxiety disorder</td>
<td>7.9</td>
<td>13.3</td>
</tr>
<tr>
<td>PTSD</td>
<td>5.0</td>
<td>8.0</td>
</tr>
<tr>
<td>Agoraphobia without PD</td>
<td>2.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>2.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Generalized anxiety disorder</td>
<td>3.1</td>
<td>5.1</td>
</tr>
<tr>
<td>OCD</td>
<td>1.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

*Kessler RC et al. Arch Gen Psychiatry. 1994;51:8-19*
DEPRESSION IN MEDICAL PATIENTS IS COMMON

- 20-50% of patients with diabetes, CAD, PD, MS, CVA, asthma, cancer... (etc) have MD
  - *Evans et al, Biological Psychiatry 2005 (review)*
- Prevalence varies by illness, pathophysiology, severity, and research methodology
- Depressed patients visit PCPs 3x more often than patients not depressed
CUMULATIVE MORTALITY FOR DEPRESSED AND NONDEPRESSED PATIENTS AFTER MI

Cumulative Mortality

Weeks Post-MI

Depressed (n=35)

Nondepressed (n=187)

% Mortality

Cox Hazard Ratio = 5.74
p=0.0006

Frazure-Smith, JAMA 1993;270:1819-1825
DEPRESSION PREDICTS IN-HOSPITAL MORTALITY

IMPACT OF COMORBID DEPRESSION IN MEDICAL PATIENTS

- ↑ mortality
  - MI (OD=2-3) (Sheps et al Psychosom Med, 2005)
  - RA (OR=2.2) (Ang et al, J Rheumatology 2005)
  - Valve surgery (OD=1.9) (Ho, Ann Thor Surg 2005)
- ↑ disability; ↑ morbidity
- ↑ healthcare utilization
- ↓ adherence; ↓ productivity at work
- ↓ recognition

- MDs, RNs assessment of depression has no relation to results of Beck Depression Inventory (Ziegelstein et al, Psychol Med 2005)
<table>
<thead>
<tr>
<th>1990</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lower respiratory infection</td>
<td>1. Ischemic heart disease</td>
</tr>
<tr>
<td>2. Conditions arising during the perinatal period</td>
<td>2. Unipolar major depression</td>
</tr>
<tr>
<td>3. Diarrheal diseases</td>
<td>3. Road traffic accidents</td>
</tr>
<tr>
<td>4. Unipolar major depression</td>
<td>4. Cerebrovascular disease</td>
</tr>
<tr>
<td>5. Ischemic heart disease</td>
<td>5. Chronic obstructive pulmonary disease</td>
</tr>
</tbody>
</table>

*Murray & Lopez, WHO: Global Burden of Disease, 1996; Michaud, JAMA, 2001*
IMPACT OF MENTAL DISORDERS: COSTS OF DEPRESSION

UNDER-RECOGNITION/UNDERTREATMENT

• 30%-70% of depression missed
• 50% stop medication within 3 months
• 50% of treated patients in primary care remain depressed after 1 year
ANXIETY IN MAJOR DEPRESSION

• 58% have an anxiety disorder

• >70% have anxiety symptoms

CO-MORBIDITY IS THE RULE
PREVALENCE OF MAJOR DEPRESSION IN PATIENTS WITH ANXIETY

- 27% (OCD + MD)
- 37% (SAD + MD)
- 62% (GAD + MD)
- 56% (Panic + MD)
- 48% (PTSD + MD)
- 42% (phobia + MD)
- 62% (GAD + MD)

Depression

GAD

SAD

OCD

PTSD

Panic

Specific Phobia

42% (phobia + MD)

62% (GAD + MD)

56% (Panic + MD)

48% (PTSD + MD)

27% (OCD + MD)

37% (SAD + MD)
**COMORBIDITY IS ASSOCIATED WITH INCREASED IMPAIRMENT**

![Graph showing impairment levels among different groups of patients and controls.](#)

- **Impaired social functioning**
  - Controls (n=5,217)
  - Pure GAD (n=92)
  - Pure MDD (n=489)
  - Comorbid GAD + MDD (n=99)

- **Impaired occupational functioning**

- **Fair/poor perceived mental health**

#1 “Fallacy of good reasons” (stigma)

- “I have good reasons to be depressed… (patient)
- “Who wouldn’t be depressed?… I would be too” (physician)

#2 “Confound of overlapping etiology” (multi-determination of Sx.)

- 4/9 signs/sx. may be ‘caused’ by either or both depression or co-morbid physical illness
  
  • low energy/fatigue
  • loss of appetite
  • trouble sleeping
  • slowing of motor movements
“Fallacy of Good Reasons”

False Propositions
(1) Everyone with significant medical illness/stress has major depression (actual prevalence <50%)
(2) Depression associated with medical illness is not treatable

Correct Assertions
(1) There may be ‘good reasons’ for depressed affect, but the syndrome of major depression is a treatable illness
## CONFOUND OF OVERLAPPING ETIOLOGY: DIAGNOSTIC MODELS

<table>
<thead>
<tr>
<th>Model</th>
<th>Projected Pos/Neg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusive</td>
<td>Count all symptoms regardless of etiology</td>
</tr>
<tr>
<td></td>
<td>High sensitivity</td>
</tr>
<tr>
<td></td>
<td>Low specificity</td>
</tr>
<tr>
<td>Etiologic (DSM)</td>
<td>If ‘etiology’ is physical, do not count</td>
</tr>
<tr>
<td></td>
<td>High face validity</td>
</tr>
<tr>
<td></td>
<td>? Inter-rater reliability</td>
</tr>
<tr>
<td>Substitutive</td>
<td>Substitute physical sx. with psychological sx.</td>
</tr>
<tr>
<td></td>
<td>?</td>
</tr>
<tr>
<td>Exclusive</td>
<td>Exclude common physical symptoms</td>
</tr>
<tr>
<td></td>
<td>High specificity</td>
</tr>
<tr>
<td></td>
<td>Low sensitivity</td>
</tr>
</tbody>
</table>

*Cohen-Cole and Stoudemire: Psych Clinics North America, 1987*
CONFOUND OF OVERLAPPING ETIOLOGY: DOES THE MODEL MATTER?

• 460 geriatric medical inpatients assessed
• Prevalence of Major Depression ranged widely
  • 21% (inclusive) (N=95)…most sensitive
  • 16% (etiologic) (N=76)…low reliability*
  • 15% (substitutive) (N=68)
  • 10% (exclusive) (N=46)…most specific
• Concurrent validity = all four models
• Predictive validity = most stability in exclusive model
• Of 68 ‘inclusive’ patients having “significant impairment”
  • 10 (15%) were “missed” by etiologic approach
  • 31 (45%) were “missed” by exclusive approach

* IRR is low for etiologic approach without structured interview and decision rules

Koenig, J Am Ger Soc, 1995
## EVIDENCE TABLE: TOWARDS CLINICAL UTILITY

<table>
<thead>
<tr>
<th>Model</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Pred Value</th>
<th>Concurrent Validity</th>
<th>Predictive Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusive</td>
<td>100%</td>
<td>80-95% (1-4)</td>
<td>54-80% (1-4)</td>
<td>+++(1)</td>
<td>++ (1,2)</td>
</tr>
<tr>
<td>Etiologic</td>
<td>100%</td>
<td>NA</td>
<td>NA</td>
<td>+++(1)</td>
<td>++ (1)</td>
</tr>
<tr>
<td></td>
<td>(g.standard)</td>
<td></td>
<td></td>
<td>+++(3)</td>
<td>+++(2)</td>
</tr>
<tr>
<td>Substitutive</td>
<td>+ (1)</td>
<td></td>
<td></td>
<td></td>
<td>- (1)</td>
</tr>
<tr>
<td>Exclusive</td>
<td>- (1)</td>
<td>+++ (1)</td>
<td>+++ (1)</td>
<td>+++ (1)</td>
<td>+++ (1)</td>
</tr>
</tbody>
</table>

- = low  
+ = moderate  
++ = mod high  
+++ = very high

1. Koenig, AJP, 1997  
2. Cavanaugh, AJP, 2001  
3. Wilson, Pain, 2000  
4. Hoogendijk, Psychosom, 1998  
6. Chochinov, AJP, 1994  
7. Federoff, AJP, 1991

*Cole and Delucia-Deranja, unpublished review*
CLINICAL APPROACH (UTILITY)

Use inclusive approach (clinically informed)

• Highest Sensitivity
• High Specificity (80-95%)
• Mod. High Pos Predictive Value (54-80%)
  – 63% and 80% in the two best studies
DMS IV TR: MODIFIED INCLUSIVE APPROACH

“Count all physical symptoms...

• unless they are clearly and fully accounted for by the physical illness”
ILLNESSES/MEDICATIONS THOUGHT TO ‘CAUSE’ MOOD DISORDERS THROUGH DIRECT PHYSIOLOGY

Illnesses

• Neurological illnesses (AD, HD, PD, CVA, MS)
• Endocrine disorders (thyroid, cortisol, calcium)
• Cancer (?pancreatic)

Medications

• Chemotherapeutic agents (interferon, others)
  – *Beratis et al, J Psychosom Res 2005*
• Antihypertensive medications (reserpine, propranolol)
• Corticosteroids
MAJOR DEPRESSION IN THE MEDICALLY ILL: SELECTIVE REVIEW

- Coronary artery disease
- Stroke
- Cancer
- Diabetes
DEPRESSION IN CAD

- Dep is risk factor for future CAD, MI
- 15-23% of MI patients have major depression
- ↑ risk (3-5x) of death after MI
- ↑ HPA axis; ↑ sympatho-medullary axis
- ↑ cytokines, other immunological markers
- ↑ platelet aggregation
- ↓ HR variability
- Genetics (5-HTTLPR serotonin-transporter region)
  - short allele -- ↑ depression ↑ death

Jiang et al, Am Heart Journal 2005
Shimbo et al Am Journal of Cardiology 2005
Carney et al Arch Int Med 2005
DEPRESSION AND STROKE

• Depression predicts future CVA
• 14-23% major depression after CVA
• Anatomy (pathophysiology)
  – “Robinson hypothesis”
    • left anterior (anterior cingulate)
    • left basal ganglia
• PSD predicts ↑ morbidity, ↑ mortality

Robinson RG. Biol Psychiatry 2003;54:376-387
DEPRESSION IN DIABETES

- 11-15% major depression (OR 2:1)
- ↑ non-adherence
- ↑ GHb (physiological relationships)
- ↑ retinopathy; ↑ neuropathy; ↑ nephropathy
- ↑ macrovascular complications (CAD, etc)

Katon, *Biological Psychiatry*, 2003
Groot et al *Psychosom Med* 2001
Van Tilburg et al *Psychosom Med* 2001
DEPRESSION IN CANCER

- 6/30 studies show positive association with depression and later cancer
- 25-33% prevalence of major depression in cancer
- 15/24 studies link depression as predictor of poor outcome in cancer
- Depression more commonly precedes pancreatic cancer than other CA (4:1)

Spiegel and Giese-Davis, Biological Psychiatry, 2003
Carney et al, Psychosomatic Medicine, 2003
MECHANISMS/RELATIONSHIPS

• Physical illness “causes” depression
  – psychological reaction (“good reasons”)
  – physical disability ‘causes’ depression
  – physiological mediators (endocrine, immune)

• Depression “causes” physical illness or worsens it
  – psycho-neuro-endocrinology
  – psycho-neuro-immunology

• Depression “causes” disability

• Depression in physical illness “causes” excess disability over and above impairment from physical illness
Depressive Anxiety Disorders

Biobehavioral Risks for Chronic Disease
- obesity
- sedentary lifestyle
- smoking
- chronic stress-metabolic syndrome

Chronic Medical Disorders
- diabetes
- cardiac
- neurological

Consequences of Chronic Illness
- symptom burden
- functional impairment
- quality of life
- biologic changes in the brain secondary to chronic illness
- biologic complications

Self-Care of Chronic Medical Disorder
- collaboration w/ MD
- exercise
- diet
- medication adherence
- monitoring symptoms or signs of exacerbation
- quitting smoking

Genetic Vulnerability

Childhood Adversity (Loss, Abuse, Neglect)

Adverse Life Events

Maladaptive Attachment

BIO-Psycho-Social Model of Depression and Physical Illness: Interactions of Etiology and Outcome

Katon, Biological Psychiatry, 2003
ANTIDEPRESSANTS IN CAD/CVD

• Tricyclics
  – prolong conduction
  – cause postural hypotension

• SADHART (Glassman et al, JAMA 2002)
  – Sertraline is safe and effective after MI
  – Sertraline inhibits platelet aggregation

• ENRICHD (Taylor et al, Arch Gen Psychiatry 2005)
  – Patients on SSRIs have ↓ death and ↓ repeat MI (OD=.55)
ANTIDEPRESSANTS IN DIABETES

• Tricyclics
  – useful for diabetic neuropathy
  – watch for postural hypotension and gastroparesis
  – may impair glycemic control
• SSRIs shown to improve depression/GHb
• Evidence of efficacy of new dual agents
  (venlafaxine, duloxetine) for neuropathic pain
OTHER TREATMENTS

- Psychotherapies (many RCT)
  - Problem-Solving Therapy (primary care)
  - CBT (ENRICHED - *JAMA* 2003)
    - with social support interventions
- Psycho-stimulants (few RCT)
  - TBI (*Lee et al Human Psychopharm* 2005)
- ECT (few RCT in medically ill)
- Combined antidepressant + psychotherapy (few RCT in medically ill)
NEW CONCEPT: VASCULAR DEPRESSION
(Sub-Cortical Ischemic Depression)*

• Defined by:
  – First onset of depression at or after 60 years of age
  – Presence of HT and/or TIA or surgery for vascular disease

• Associated with:
  – ↓ depressive ideation
  – ↑ psychomotor retardation
  – ↓ response to antidepressants
  – ↓ Cognitive dysfunction (executive)

• MRI findings: Left frontal and left putamen deep white matter hyperintensities

Alexopoulis, J Am Ger Soc 2003
Krishnan, Biol Psychiatry 2004*
Alexopoulos et al, Biol Psychiatry 2005
Heiden et al, J Psychiatric Res 2005
Rapp et al, Am J Psych 2005
T2 Hyperintensities on MRI

Courtesy of Martin Goldstein MD
NEW TOOL: PATIENT HEALTH QUESTIONNAIRE (PHQ-9)

- 9-item, self-administered questionnaire
- Validated for diagnostic assessment
  - 88% sensitivity and specificity for MDD
- Validated for follow up of outcomes
- 1st two questions for screening (PHQ2)
  - 83% sensitivity and 92% specificity
- Performs well after stroke (and other illness)
  - Williams et al, Stroke 2005

Spitzer R, et al. JAMA 1999
Kroenke K et al, Medical Care, 2003
Kroenke K et al, J Gen Int Med, 2001
## PHQ - 9 Symptom Checklist

1. **Over the last two weeks** have you been bothered by the following problems?

<table>
<thead>
<tr>
<th></th>
<th>Not at all 0</th>
<th>Several days 1</th>
<th>More than half the days 2</th>
<th>Nearly every day 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Little interest or pleasure in doing things</td>
<td></td>
<td></td>
<td></td>
<td>![Check]</td>
</tr>
<tr>
<td>b. Feeling down, depressed, or hopeless</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Trouble falling or staying asleep, or sleeping too much</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Feeling tired or having little energy</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Poor appetite or overeating</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Feeling bad about yourself, or that you are a failure . . .</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Trouble concentrating on things, such as reading . . .</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Moving or speaking so slowly . . .</td>
<td>![Check]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Thoughts that you would be better off dead . . .</td>
<td></td>
<td>![Check]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Subtotals:** 3 4 9

2. **... how difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?**

- Subtotals: 3 4 9
- TOTAL: 16

*Oxman, 2003*
SCORING THE PHQ: SEVERITY

• Count numerical values of symptoms
  – 0-4 not clinically depressed
  – 5-9 mild depression
  – 10-14 moderate depression
  • 88% sensitivity, 88% specificity (MDD)
  – >14 severe depression
USE OF THE PHQ

• Assess high-risk, ‘red flag’ patients
  – Chronic illness
  – Unexplained physical complaints
  • sleep disorder, fatigue
  – Patients who appear sad
  – Recent major stress or loss
TREATMENT OF DEPRESSION
TREATMENT

- Watchful waiting
- Psychotherapy
- Antidepressant medication
- Combination therapies
THREE PHASES OF TREATMENT

Symptom Severity

Acute Phase (3 months+)

Continuation Phase (4-9 months)

Maintenance Phase (years)

Time

Normal

Response

Remission

Recovery

Relapse

Recurrence

> 50%

STOP Rx

65 to 70%

STOP Rx

Oxman, 2001
WATCHFUL WAITING (WW)

- Some low intensity depressions remit spontaneously
- WW is an acceptable “treatment plan”
- Initial treatment of choice for minor depression
GOAL: FULL REMISSION

• Remission of symptoms treatment goal
  – Resolution of emotional/physical symptoms
• Restoration of full functioning
  – Return to work, hobbies, relationships
• PHQ score < 5 for three months
Potential Consequences of Failing to Achieve Remission

- Increased risk of relapse and resistance\(^1\)-\(^3\)
- Continued psychosocial limitations\(^4\)
- Decreased ability to work and productivity\(^5\),\(^6\)
- Increased cost for medical treatment\(^6\)
- Sustained depression may worsen morbidity/mortality of other conditions\(^7\)-\(^9\)

PSYCHOTHERAPY

• Effective (CBT/IPT/PST)
  – Mild to moderate major depression
  – Adjunct to antidepressants
• Possibly effective
  – Dysthymia (chronic depression)
  – Minor depression
  – For patients in life transitions or with personal conflicts
PHARMACOTHERAPY

- Effective
  - major depression
  - chronic depression (dysthymia)
- Equivocal
  - minor depression
ANTIDEPRESSANTS

- **TRICYCLICS**
- **SSRIs**
  - citalopram (Celexa)
  - escitalopram (Lexapro)
  - fluoxetine (Prozac)
  - paroxetine (Paxil)
  - sertraline (Zoloft)
- **OTHER NEW AGENTS**
  - bupropion (Wellbutrin SR, XL) - DA/NE
  - duloxetine (Cymbalta) - SRI/NRI
  - mirtazapine (Remeron) - NE/5HT
  - venlafaxine (Effexor XR) - SRI/NRI
MEDICATION ALGORITHM

- Start with SSRI or new agent
- Early follow-up (1-2 weeks)
- Increase dose every 2-4 weeks (to evaluate effect of each dose change)
- Repeat PHQ every month
- MCID=5 points on PHQ-9
- Raise dose or change treatment until PHQ<5 for 3 months (remission)
PARTIAL OR NON-RESPONSE

- If no response, switch drug or class
- If partial response at maximum dose, consider augmentation/consultation
- Continue medication for at least 4-9 months after full remission
- Use full-dose maintenance for recurrent depressions
RECOVERY BECOMES MORE LIKELY WITH EACH EPISODE OF DEPRESSION

Risk recurrence (%) following recovery during long-term follow-up*

DRUG INTERACTIONS

• Obtain medication history
• Be aware that all drugs can affect the action and serum levels of other drugs
• Monitor the clinical effects and serum levels of all medications
• Use electronic data base
DRUG INTERACTIONS
(INHIBITION OF CYTOCHROME P450)

- \text{IID}_6
  - Moderate inhibition
    - duloxetine (Cymbalta)
    - fluoxetine* (Prozac)
    - paroxetine* (Paxil)
  - Low inhibition
    - bupropion* (Wellbutrin)
    - escitalopram (Lexapro)
    - mirtazapine* (Remeron)
    - sertraline (Zoloft)
    - venlafaxine (Effexor)

*generic available
ANTIDEPRESSANTS IN DIABETES

- Tricyclics
  - useful for diabetic neuropathy
  - watch for postural hypotension and gastroparesis
  - may impair glycemic control
- SSRIs shown to improve depression/GHb
- Evidence of efficacy of new dual agents (venlafaxine, duloxetine) for neuropathy
OTHER TREATMENTS

• Psycho-stimulants
  – methylphenidate (Ritalin)
  – dextroamphetamine
  – modafinil (Provigil)

• Electroconvulsive therapy
TREATMENT OF ANXIETY
### 5-HT DRUGS: ALL APPROVED INDICATIONS

<table>
<thead>
<tr>
<th>Drug</th>
<th>MD</th>
<th>Panic</th>
<th>OCD</th>
<th>SAD</th>
<th>GAD</th>
<th>PTSD</th>
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<tbody>
<tr>
<td>citalopram</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>duloxetine</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DN</td>
</tr>
<tr>
<td>escitalopram</td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>fluoxetine</td>
<td>Adult and children</td>
<td>X</td>
<td>Adult and children</td>
<td></td>
<td></td>
<td>BN</td>
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<tr>
<td>paroxetine</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>sertraline</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
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<tr>
<td>venlafaxine</td>
<td>X</td>
<td>X</td>
<td></td>
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</table>

DEP = major depression; OCD = Obsessive-compulsive disorder; SAD = social anxiety disorder; GAD = generalized anxiety disorder; PTSD = post-traumatic stress disorder; BN = bulimia nervosa; PDD = premenstrual dysphoric disorder; DN = diabetic neuropathy
### TREATMENTS FOR ANXIETY DISORDERS

<table>
<thead>
<tr>
<th></th>
<th>CBT</th>
<th>SSRI</th>
<th>Bus**</th>
<th>Antidep*</th>
<th>BZ***</th>
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</thead>
<tbody>
<tr>
<td>Panic Disorder</td>
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<td>Soc anxiety disorder</td>
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<td>OCD</td>
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<td>Generalized anxiety</td>
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<td>PTSD</td>
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<td>Specific phobia</td>
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</tbody>
</table>

*Tricyclic antidepressants and venlafaxine

**buspirone**

**CBT = cognitive behavioral therapy; ***BZ = benzodiazepines.
BENZODIAZEPINES
(all available as generics)

• Short acting: lorazepam (Ativan)
  oxazepam (Serax)

• Intermediate: alprazolam (Xanax)

• Long acting: clonazepam (Klonopin)
  diazepam (Valium)
  chlordiazepoxide (Librium)

*excreted in the urine, after simple metabolism
PSYCHOPHARMACOLOGY IN THE ELDERLY: SPECIAL CONSIDERATIONS

Pharmaco-kinetics - increased effect
• hepatic metabolism decreased
• decreased protein binding

Pharmaco-dynamics - increased effect
• increased receptor sensitivity

Clinical Implications
• Start low, go slow… but GO!
NEW MODELS OF CARE: Depression in Primary Care

• Historical role of PCP
  – *de facto* provider of mental health services

• Future role of PCP
  – explicit partnership between PCPs and behavioral health specialists
COLLABORATIVE CARE

Katon et al, JAMA 1995
Collaborative Care (CC) for Depression

- Several versions/models of CC demonstrated effective
- 60-80% one-year response in CC vs. 50% recovery in “care as usual”
- Fewer disability days in CC
- No “cost-offset” demonstrated yet
- “Cost-efficacy” demonstrated
CORE ELEMENTS OF CC

- Evidence-based guidelines
- Patient and PCP education
- Objective tools (PHQ-9)
- Care manager
- Step-care model
- Information system
A Model for Improving Chronic Illness Care*

Community Resources and Policies

Health System Organization of Health Care

Self-Management Support

Decision Support

Delivery System Design

Clinical Information Systems

Functional and Clinical Outcomes

Informed, Activated Patient

Productive Interactions

Prepared, Proactive Practice Team

*E. Wagner, MD, W.A. MacColl Institute, Group Health Cooperative of Puget Sound
Collaborative Care in General Medical and Specialty Settings

• Effective in patients with RA, stroke, etc.
• Patients with significant general medical illness(es) respond just as well as those without general medical illnesses
  – Harpole et al, General Hospital Psychiatry 2005
• Depression Rx. effective in improving physical functioning
  – Simon et al, Psychol Med 2005
  – Callahan et al, J Am Ger Soc 2005
Thank You!
ValueOptions’ Depression Treatment Support Program

For more information about our program and to access member tip sheets, please visit http://www.valueoptions.com/members/Tips_and_Resources.htm.