

## Psychopharmacology for Non-Psychiatrists

John Q. Young, M.D., M.P.P.  
Assistant Clinical Professor  
University of California, San Francisco  
[jyoung@lppi.ucsf.edu](mailto:jyoung@lppi.ucsf.edu)

\*indicates slide included for reference and may be skipped during the presentation

## Major Diagnostic Categories

### Mood Disorders

Anxiety Disorders  
Psychotic Disorders  
Somatoform Disorders  
Substance Abuse Disorders  
Personality Disorders

## Case Vignette#1

A 49yo Caucasian woman with a history of breast cancer reports that for the past 2 months she has had depressed mood, excessive sleep, low energy, poor appetite, and difficulty with concentration. She has not had any previous episodes of depression.

## Case Vignette#1 Question

Which of the following interventions is LEAST appropriate?

- Screening neurological examination.
- Trial of sertraline 50mg qd.
- Assessment of suicidality.
- Laboratory evaluation, including thyroid function tests.
- Trial of lorazepam 1mg qhs.

## Case Vignette#1 Answers Discussed

e. Trial of lorazepam is LEAST appropriate because benzodiazepines are not indicated for depressive syndromes.

Include psychiatric disorders in your differential!

## Major Depressive Episode: SIG E CAPS criteria

Depressed mood (or anhedonia), plus:

- **S** --Sleep symptoms
- **I** --lack of Interest.
- **G** --feelings of Guilt
- **E** --lack of Energy.
- **C** --lack of Concentration.
- **A** --lack of Appetite.
- **P** --P psychomotor changes
- **S** --thoughts of Suicide

## Major Depressive Episode: DSM IV Criteria\*

- Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning; at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.
- depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g., appears tearful). (In children and adolescents, this may be characterized as an irritable mood.)
  - markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
  - significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day.
  - insomnia or hypersomnia nearly every day
  - psychomotor agitation or retardation nearly every day
  - fatigue or loss of energy nearly every day
  - feelings of worthlessness or excessive or inappropriate guilt nearly every day
  - diminished ability to think or concentrate, or indecisiveness, nearly every day
  - recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

## Major Depressive Disorder Treatments

- Psychopharmacological:  
SSRI's, TCA's, MAOI's, psychostimulants
- Psychosocial (may also be used first-line):  
Cognitive-behavioral therapy, interpersonal therapy
- Somatic:  
Electroconvulsive therapy, transcranial magnetic stimulation

N.B. All treatments for major depression about equally efficacious (ECT may be a bit better)

## Major Depressive Disorder Antidepressants

- SSRI's (selective serotonin reuptake inhibitors)—  
first line (fairly safe in OD), recommend 9m  
minimum duration of treatment
- side effects: a) "long term": weight gain (moderate), sexual side effects (in around 35%)  
b) "short term": nausea, diarrhea, headache, rash, insomnia, sweating  
c) "serotonin syndrome" – usually in combo with two or more serotonergic agents: restlessness, confusion, flushing, tremor progressing to hyperthermia, hypertonicity, rhabdomyolysis, death

Fluoxetine (Prozac), sertraline (Zoloft), paroxetine (Paxil), fluvoxamine (Luvox), citalopram (Celexa), escitalopram (Lexapro)

## SSRI Adverse Effects

- a) "long term": weight gain (moderate), sexual side effects (in around 35%)
- b) "short term": nausea, diarrhea, headache, rash, insomnia, sweating
- c) "serotonin syndrome" – usually in combo with two or more serotonergic agents: restlessness, confusion, flushing, tremor progressing to hyperthermia, hypertonicity, rhabdomyolysis, death

## Major Depressive Disorder Antidepressants

### Other antidepressants

- Mirtazapine (Remeron): sedation and weight gain
- Venlafaxine (Effexor): Mixed NE and 5HT activity, increases BP, similar side effect profile to ssri's
- Duloxetine (Cymbalta): Also mixed NE and 5HT activity
- Bupropion (Wellbutrin): low rate of sexual side effects or weight gain, associated with increase rate of seizures, not for use in patients with eating disorders, prior seizure d/o
- Nefazodone (Serzone) 5-HT<sub>2</sub> blocker, often recommended for anxious depression, black box warning for liver failure, low rate of sexual se's
- Trazodone (Desyrel) – usually prescribed as a hypnotic (ie, sleep aid)

## Major Depressive Disorder Antidepressants

### TCA's (tricyclic antidepressants):

anticholinergic side effects, orthostatic hypotension, tremor, weight gain, sexual side effects, cardiac conduction delay (quinidine like effect), NE reuptake inhibitors

Examples [not a complete list]: amitriptyline (Elavil), doxepin (Sinequan), imipramine (Tofranil), desipramine (Norpramin), nortriptyline (Pamelor, Aventyl), maprotiline (Ludiomil)

MAOI's (monoamine oxidase inhibitors): important: dietary restrictions! (b/o hypertensive crisis)  
side effects: sedation, sexual side effects, weight gain

phenelzine (Nardil), tranylclopramine (Parnate), [selegiline (Eldepryl) for Parkinson's]

## Major Diagnostic Categories

### Mood Disorders: Bipolar

Anxiety Disorders  
Psychotic Disorders  
Somatoform Disorders  
Substance Abuse Disorders  
Personality Disorders

## Case Vignette#2

A 59yo Caucasian woman with a history of depression, multiple drug overdoses, and alcohol dependence presents with three weeks of depressed mood, suicidal thoughts, severe insomnia, hyperactivity, racing thoughts, and impulsivity.

She also has congestive heart failure, and is on hydrochlorothiazide and potassium supplements.

## Case Vignette#2 Question

Which of the following interventions is LEAST appropriate?

- Urine toxicology screen.
- Trial of quetiapine 50mg qd.
- Trial of risperidone 1mg qhs.
- Initiation of lithium carbonate 300mg qhs.
- Initiation of divalproex 500mg qhs.

## Case Vignette#2 Answers Discussed

- Urine toxicology screen is indicated to rule out substance abuse.
  - Low-dose atypical antipsychotics target insomnia, racing thoughts, and agitation.
  - Low-dose atypical antipsychotics target insomnia, racing thoughts, and agitation.
  - Lithium is a little tricky because of diuretic usage.
  - Divalproex is the preferred treatment for bipolar disorder in patients with potential electrolyte and fluid shifts.
- n.b. Trial of antidepressants is contraindicated because patient may be experiencing a mixed episode.

## Bipolar Disorder

- Formerly known as manic depression
- Bipolar disorder in the primary care population is more common than previously thought (up to 25% of anxious and depressed patients).
- Don't forget about various presentations of hypomanic or manic or mixed episodes.
- Typical triggers include disruption of regular routines of sleep and/or social activities.
- Patients should be instructed to avoid street drugs.

## Bipolar Disorder Mixed Episode\*

- Duration of 1 week.
- Rapidly alternating moods (sadness, irritability, euphoria) accompanied by symptoms of a Manic Episode and a Major Depressive Episode.
- Frequently includes agitation, insomnia, appetite dysregulation, psychotic features, and suicidal thinking.
- Symptoms are not due to the direct effects of a substance, or a general medical condition.

### **Bipolar Disorder: DIG FAST**

D – Distractibility  
I – Insomnia  
G – Grandiosity (or inflated self esteem)

F – Flight of Ideas (or racing/crowded thoughts)  
A – Activities (increased goal directed activities)  
S- Speech (pressured)  
T- Thoughtlessness (impulsivity, ie, increased pleasurable activities with potential for negative consequences: sex, money, traveling, driving)

### **Bipolar Disorder: Psychopharm Treatment**

#### Mood stabilizers:

- Mainstay of treatment
- usually require lab monitoring

### **Bipolar Disorder: Psychopharm Treatment**

Lithium carbonate: polyuria (nephrogenic diabetes insipidus), hypothyroidism, acne vulgaris (oily skin)  
intoxication sx's (cognitive difficulties/confusion, tremor, ataxia)  
Labs: pretreatment: CBC, lytes, lfts, creatinine, tft's and then 5d after changing dosage and q6m: trough lithium level, creatinine, tsh

### **Bipolar Disorder: Psychopharm Treatment**

Divalproex (valproate, Depakote): elevated lft's, thrombocytopenia, weight gain, sedation, rare pancreatitis, ?polycystic ovary syndrome  
Labs: pretreatment- CBC w platelets, LFT's, pregnancy  
5d after dosage changes and q6m -cbc with plts, lfts, weight, pancreatic enzymes prn abd pain, n/v, anorexia

### **Bipolar Disorder: Psychopharm Treatment\***

Carbamazepine (Tegretol): aplastic anemia, drug-drug interactions, autoinduction  
Labs: pretreatment: cbc, platelets, reticulocytes, serum iron, ALT, AST, LDH, Alk Phos, serum bilirubin, serum electrolytes, EKG, eye exam/slit lamp, pregnancy test  
5 days after dosage adjustment: carbamazepine level  
Every 2 weeks, first 2-3 months: CBC, carbamazepine level  
Then q3m: electrolytes, ALT, AST, LDH, alk PO4, bilirubin, carbamazepine level

### **Bipolar Disorder: Psychopharm Treatment**

#### Other anticonvulsants:

Lamotrigine: steven-johnsons syndrome (Know how to evaluate and manage Stevens-Johnson Syndrome), slow taper up  
Topiramate: weight neutral, kidney stones, cognitive side effects  
Gabapentin: not effective in monotherapy, few side effects

## **Bipolar Disorder: Psychopharm Treatment**

### Antidepressants

- Monotherapy with antidepressants in bipolar disorder is a significant risk factor for switches into hypomania or mania or cycle acceleration.
- Therefore, use a mood stabilizer first!
- Tricyclic antidepressants and MAO-I's represent greater risk.
- Antidepressants of roughly equal efficacy.

## **Bipolar Disorder: Psychopharm Treatment**

### Atypical Antipsychotics (see section on Psychotic Disorders)

- Helpful with agitation, psychotic features, insomnia
- Less risk of tardive dyskinesia compared with traditional antipsychotics
- High rate of weight gain, dyslipidemia, hypercholesterolemia, hyperglycemia

### Sedative-hypnotics (see section on Anxiety Disorders)

- Useful adjuncts for maintaining sleep-wake cycles
- N.B. High rates of co-morbid substance abuse in patients with bipolar disorder.

## **Bipolar Disorder: psychosocial treatments\***

- Cognitive-behavioral therapy
- Psychoeducation
- Family-Focused Therapy
- Interpersonal psychotherapy and social rhythm therapy

Used in conjunction with pharmacological management

## **Major Diagnostic Categories**

Mood Disorders

**Anxiety Disorders**

Psychotic Disorders

Somatoform Disorders

Substance Abuse Disorders

Personality Disorders

## **Case Vignette#3**

A previously healthy 28-year-old man reports the development one day ago of acute chest pain, sweating, shortness of breath, diaphoresis and trembling while driving home from work one day. The episode lasted approximately 20 minutes and resolved spontaneously. He describes several similar episodes over the past two weeks. Rest of the physical examination is normal, as is the ECG.

## **Case Vignette#3 Question**

Which of the following statements is NOT correct?

- a. Panic attacks are not specific for panic disorder and can occur in other psychiatric conditions (other anxiety disorders, substance abuse).
- b. No further laboratory evaluation is indicated.
- c. Further history should be obtained about other triggers of attacks.
- d. Compensatory avoidance behavior often causes greater morbidity than the episodes themselves.
- e. Substance abuse history, including caffeine and nicotine, should be elicited.

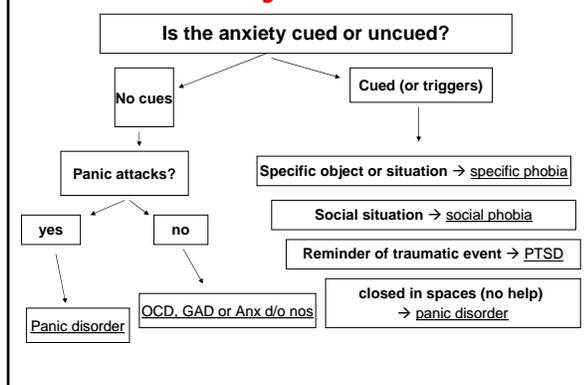
### Case Vignette#3 Answers Discussed

b. Laboratory evaluation for thyroid function tests and a urine tox screen would be helpful.

### Anxiety Disorders\*

- 1) Panic disorder, +/- Agoraphobia
- 2) Agoraphobia without h/o panic attacks
- 3) Obsessive-compulsive disorder
- 4) Post-Traumatic Stress Disorder
- 5) Acute Stress Disorder
- 6) Specific Phobia
- 7) Social Phobia
- 8) Generalized Anxiety Disorder
- 9) Anxiety Disorder, NOS

### Anxiety disorders



### Panic Attack

- Episodes have a sudden onset and peak rapidly (usually in 10 minutes or less)
- Often accompanied by a sense of imminent danger or doom and an urge to escape
- Frequently presents to ER with fear of catastrophic medical event (e.g., MI or stroke)

### Panic Attack

Discrete period of intense fear or discomfort accompanied by four or more of following:

- Palpitations
- Sweating
- Trembling
- Choking
- Chest pain
- Dizzy, faint
- Derealization
- Numbness
- Chills or hot flashes
- Fear of losing control, going crazy
- Fear of dying, passing out



### Panic Attacks: A Syndrome

- Not specific to Panic Disorder
- Occurs in social phobia, specific phobia, PTSD and OCD
- May herald depression
- May be secondary to:
  - underlying medical condition
  - medication side effect
  - illicit drug use

## Panic Disorder

- Recurrent unexpected panic attacks
- Followed by one or more of the following:
  - Anticipation of additional attacks
  - Worry about implications of attacks
  - Change in behavior
- With or without Agoraphobia

## Agoraphobia

- Anxiety about being in situations from which escape might be difficult
- Usually secondary to panic attacks
- Avoided situations include: driving, bridges, tunnels, elevators, airplanes, malls, long lines, sitting in middle of row, etc.

## Post-Traumatic Stress Disorder

Requires history of trauma

Three clusters of symptoms

- Re-experiencing (flashbacks, nm's)
- Avoidance and numbing
- Arousal (insomnia, hypervigilance)
  
- Duration of more than one month

## Obsessive-compulsive disorder

Typical obsessions:	Typical compulsions
Contamination: Fear of dirt or germs, bodily waste or fluids (a feeling of dirtiness)	Repeated washing/cleaning, ritual behavior or thinking
Ordering: Concern with order, symmetry (balance) and exactness	Concern with order, symmetry (balance) and exactness
Perfectionism: Worry that a task has been done poorly, or a mistake has been made	Checking drawers, door locks and appliances to be sure they are shut, locked or turned off (see also hypochondriasis)
Intrusive thoughts: blasphemous, sexual, violent	Ritual behavior or "superstitious thinking"
"I might use it later."	hoarding

## Obsessive-compulsive disorder\*

Patient usually has obsessions and compulsions:

**Obsessions** as defined by (1), (2), (3), and (4):

- 1) recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and that cause marked anxiety or distress
- 2) the thoughts, impulses, or images are not simply excessive worries about real-life problems
- 3) the person attempts to ignore or suppress such thoughts, impulses, or images, or to neutralize them with some other thought or action
- 4) the person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion)

## Obsessive-compulsive disorder\*

**Compulsions** as defined by (1) and (2):

- 1) repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession, or according to rules that must be applied rigidly.
- 2) the behaviors or mental acts are aimed at preventing or reducing distress or preventing some dreaded event or situation; however, these behaviors or mental acts either are not connected in a realistic way with what they are designed to neutralize or prevent or are clearly excessive

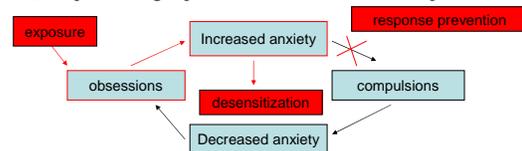
## Obsessive-compulsive disorder\*

- At some point during the course of the disorder, the person recognizes that the obsessions or compulsions are excessive or unreasonable.
- The obsessions or compulsions cause marked distress, are time consuming (take more than 1 hour a day), or significantly interfere with the person's normal routine, occupational (or academic) functioning, or usual social activities or relationships

## Obsessive-compulsive disorder

Treatments include:

- 1) SSRI's: usually high dose, take longer for effect
- 2) Clomipramine (Anafranil)
- 3) **Behavior Therapy:**  
**Exposure-Response Prevention**
- 4) Psychosurgery for treatment-refractory cases



## Specific Phobia, Social Phobia, Acute Stress Disorder, Anxiety Disorder, NOS

Social Phobia (often overlaps with Avoidant Personality Disorder)

Common, but often difficult to treat

Specific Phobia

Usually best treated with desensitization, but medication augmentation occasionally indicated

## Generalized Anxiety Disorder\*

- Excessive worries for at least six months about real life problems such as school and work performance.
- Accompanied by anxiety symptoms
  - 3 or more of the following:
    - Restlessness or feeling keyed-up or on edge
    - Easy fatigability
    - Trouble concentrating
    - Irritability
    - Muscle tension
    - Sleep disturbance

## Anxiety Disorders Psychopharmacology

### Antidepressants

SSRI's – first line, 6m duration of treatment, can be used with bdz's, side effect management essential

\* (for ocd, medication treatment of choice is serotonergic agents, often need to be used for longer periods at upper range of dosages)

### Tricyclics

#### Other antidepressants

- Mirtazapine (Remeron)
- Venlafaxine (Effexor)
- Duloxetine (Cymbalta)
- Bupropion (Wellbutrin)
- Nefazodone (Serzone)
- Trazodone (Desyrel)

**Buspirone** – partial agonist of 5HT<sub>1a</sub>

- 5-20mg tid, takes 2-6 weeks
- no w/d sx, easy to use, may be preferred in elderly

## Anxiety Disorders Psychopharmacology

### Anxiolytics– benzodiazepines

- All share same mechanism of action
- Vary by speed of onset, metabolism and duration of action
- Shorter-acting usually means faster speed of onset: eg,
  - alprazolam (Xanax)
  - triazolam (Halcion)
- Longer-acting: diazepam (Valium), clonazepam (Klonopin), lorazepam (Ativan)

## Anxiety Disorders Psychopharmacology

### Anxiolytics– benzodiazepines

- Main side effects include: sedation, ataxia, amnesia, potential for abuse
- Generally useful for short-term anti-anxiety, tolerance frequently develops within 1-2 weeks
- Should not be discontinued abruptly (esp. shorter acting bdz's): taper over 1-3 weeks

## Anxiety Disorders Other sleepers

### New Sleepers

- Zolpidem (Ambien, Ambien CR)
- Zaleplon (Sonata)
- Eszopiclone (Lunesta)
- Ramelteon (Rozerem)

### Old "Sleepers"

- Trazodone
- Tricyclics (doxepin)
- Mirtazapine
- Antihistamines (diphenhydramine, hydroxyzine)
- antipsychotics

## Sleep Hygiene (I)\*

1. Sleep as much as needed to feel refreshed during the following day. Restricting the time in bed seems to solidify sleep, but excessively long times in bed seem related to fragmented and shallow sleep.
2. Limit or stop use of nicotine, caffeine, and alcohol. Although alcohol helps tense people fall asleep more easily, the ensuing sleep is then broken up. Nicotine and caffeine may not appear to interfere with falling asleep, but they often induce fragmented sleep or early morning awakening.
3. Get up at the same time each day, 7 days a week. (A regular awake time in the morning leads to regular times of sleep onset.)
4. Exercise regularly, but no later than late afternoon or early evening. (This will deepen sleep.)
5. For those persons who feel angry and frustrated because they cannot sleep, do not try harder and harder to fall asleep, but instead turn on the light, leave the bedroom, and do something different (such as reading a boring book). Do not engage in stimulating activity. Return to bed only when sleepy. Get up at your regular time the next day, no matter how little you slept.

## Sleep Hygiene (II)\*

6. For those persons who find themselves worrying in bed, try writing down your worries and concerns before you go to bed and place the list on your dresser to examine the next morning.
7. Make your bedroom comfortable. Insulate your bedroom against sounds (by, e.g., installing carpeting, insulating curtains, and closing the door). Keep the room temperature moderate, because excessively warm rooms may disturb sleep.
8. Try to avoid excessive liquids in the evening in order to minimize the need for nighttime trips to the bathroom.
9. Try a light snack (but not a heavy meal) before bedtime. (Hunger may disturb sleep).
10. If you find yourself waking up and looking at the clock, put the clock under the bed or cover it up.
11. Not all of these rules work well for everyone: find the combination that works best for you.

## Major Diagnostic Categories

Mood Disorders  
Anxiety Disorders  
**Psychotic Disorders**  
Somatoform Disorders  
Substance Abuse Disorders  
Personality Disorders

## Case Vignette#4

A 42-year-old man with a history of asthma, irritable bowel syndrome, and schizophrenia presents with a chief complaint of "I feel like jumping out of my skin." He has a history of intermittent medication compliance. Vital signs and physical examination are normal, except for mild rigidity of upper extremities.

### Case Vignette#4 Question

Which of the following medications is the most likely cause of his chief complaint?

- a. Lithium carbonate 600mg po bid
- b. Ibuprofen 400mg tid
- c. Albuterol inhaler two puffs tid
- d. Prochlorperazine 10mg bid
- e. Olanzapine 10mg qhs

### Case Vignette#4 Answers Discussed

- a. Lithium carbonate 600mg po bid
- b. Ibuprofen 400mg tid
- c. Albuterol inhaler two puffs tid
- d. Prochlorperazine 10mg bid (Compazine)
- e. Olanzapine 10mg qhs (Zyprexa)

Potent D2 blockers can cause **akathisia** and EPS

### Psychotic Disorders

"Psychosis": perceptions, thoughts or behaviors that are not based in reality (ie, impairment in reality testing)

Examples: auditory hallucinations, paranoid ideation, delusions

Key points:

- Rule out substance abuse (or other drugs)
- Rule out delirium (which entails disorientation)
- Psychosis may be present in other psychiatric disorders, not just schizophrenia (eg, psychotic features may be present in major depression or bipolar disorder)

### Psychotic Disorders\*

- Schizophrenia
  - Paranoid, disorganized, catatonic, undifferentiated, residual types
- Schizophreniform disorder
- Schizoaffective disorder
- Delusional disorder
- Brief psychotic disorder
- Shared psychotic disorder ("folie a deux")

### Psychotic Disorders\*

#### Schizophrenia (DSM-IV)

Of unknown etiology, probably heterogeneous neurodevelopmental disorders

DSM-IV Criteria:

- A. At least two of the following: (1)delusions, (2)hallucinations, (3)disorganized speech, (4)grossly disorganized or catatonic behavior, (5)negative symptoms
- B. Marked decrement in psychosocial functioning
- C. Continuous signs of the disturbance for at least 6 months
- D,E,F – exclusion criteria (ie, not due to another psychiatric disorder, medical condition)

### Psychotic Disorders: Traditional Antipsychotics

#### Side effects of traditional neuroleptics:

- EPS (extrapyramidal symptoms): parkinsonism (can be treated with anticholinergics), dystonias, akathisia
- Acute dystonic reactions (oculogyric crises): treated with anticholinergic
- Tardive dyskinesia
- Hyperprolactinemia: with assoc. amenorrhea, galactorrhea, sexual dysfunction, osteoporosis
- Neuroleptic malignant syndrome: can be life-threatening, presents with severe rigidity, fever, leukocytosis, tachycardia, blood pressure instability, rhabdomyolysis; treatment is mostly supportive [stop antipsychotic], also dantrolene, bromocriptine, ECT

## Psychotic Disorders: Traditional Antipsychotics

**Antipsychotics** (aka neuroleptics, "major" tranquilizers), divided by degree of potency  
Potency refers to degree of D2 antagonism relative to anticholinergic activity

Low-potency vs. high-potency neuroleptics:

- Low-potency associated with less EPS (extrapyramidal symptoms), less parkinsonism (can be treated with anticholinergics)
- All associated with tardive dyskinesia, akathisia
- Greater sedation and weight gain with low-potency
- Anticholinergic side effects greater with low potency neuroleptics: orthostasis, urinary retention, weight gain, blurred vision

## Psychotic Disorders: Traditional Antipsychotics\*

"Low potency": chlorpromazine (Thorazine), thioridazine (Mellaril)

"Mid potency": trifluoperazine (Stelazine), thiothixene (Navane), perphenazine (Trilafon)

"High potency": haloperidol (Haldol), fluphenazine (Prolixin)

## Psychotic Disorders: Atypical Antipsychotics

- Multiple receptor effects: serotonin and dopamine receptor subtypes
- Much lower rates of EPS, including tardive dyskinesia
- Neuroleptic malignant syndrome very rare
- High rate of weight gain, dyslipidemia, hypercholesterolemia, hyperglycemia

Examples: listed in order of rate of weight gain/sedation (greatest to lowest)

Olanzapine (Zyprexa)	2.5mg-20mg at hs
Quetiapine (Seroquel)	12.5mg-600mg at hs
Risperidone (Risperdal)	0.25mg-6mg at hs or bid
Ziprasidone (Geodon)	20-160mg a day
Aripiprazole (Abilify)	5-30mg a day

## Major Diagnostic Categories

Mood Disorders

Anxiety Disorders

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**Somatoform Disorders**

Substance Abuse Disorders

Personality Disorders

## Case Vignette#5

A 77yo male, widowed Chinese retired accountant, who is healthy except for mild hypertension and a history of chronic multiple somatic complaints, now complains of "heavy head", as well as decreased energy, hypersomnolence and low mood for the past seven months. Screening neuro exam is unremarkable. Routine labs done two months ago are also noncontributory.

## Case Vignette#5 Question

Which of the following is the MOST appropriate in the management of this patient?

- a. The goal should be complete remission of symptoms.
- b. Initiate citalopram 20mg daily.
- c. Avoid discussing social issues with patient.
- d. Instruct patient to return to clinic for follow-up "as needed".
- e. Instruct patient to go to Emergency Department "as needed".

### Case Vignette#5 Answers Discussed

- “Curing the patient” should not be the goal in this situation
- Antidepressants can be helpful for subclinical depressions.
- Focus on social issues
- Regular visits decreases inadvertent reinforcement of symptom production.
- As above.

### Somatoform Disorders\*

Somatization Disorder  
 Conversion Disorder  
 Pain Disorder  
 Hypochondriasis  
 Factitious Disorder (Munchausen’s syndrome)  
 Malingering  
 Body Dysmorphic Disorder  
 Somatoform Disorder, Not Otherwise Specified

### Somatoform Disorders

	Motivation: unconscious	Motivation: conscious
Production of symptoms: unconscious	Conversion Disorder	N.A.
Production of symptoms: conscious	Factitious Disorder	Malingering

### Somatoform Disorders Somatization Disorder

- 8 or more unexplained medical symptoms (0.5% prevalence)
- “Abridged somatization”: 4 or more unexplained physical symptoms
- 4.4% prevalence in general population
- 22% prevalence in primary care practice
- Somatoform disorders often overlap with each other and with general medical conditions

### Somatoform Disorders

#### Conversion Disorder

- Frequently sudden onset (“hysteria”)
- Symptoms may include paralysis, gait or coordination disturbance, seizures (“pseudoseizures”)
- 13-30% later develop general medical condition

### Somatoform Disorders

#### Pain Disorder

- These patients can be particularly challenging
- Often perceived as angry or drug-seeking
- Pain medications often have abuse/tolerance potential
- Patients not infrequently have substance abuse histories
- TCA’s can be helpful
- Mindfulness-Based Stress Reduction may also be helpful

## Somatoform Disorders

### Hypochondriasis

- Preoccupied with fears of having a serious disease based upon misinterpretation of bodily symptoms [fyi: average American has one unexplained symptom per week]
- Preoccupation persists despite appropriate medical evaluation and reassurance

### Additional DSM criteria

- Lasts at least 6m
- Not delusional → psychotic disorder
- Not confined to a concern about appearance → body dysmorphic disorder or eating disorder

Tip: rule out OCD-like condition(s)!

## Management of Chronic Major Somatization\*

### 1) Care Rather Than Cure

Don't try to eliminate symptoms completely  
Focus on coping and functioning as goals of treatment

### 2) Diagnostic and Therapeutic Conservatism

Review old records before ordering tests  
Respond to requests just as for patient who does not somatize  
Frequent visits and physical examinations  
Benign remedies

(Adapted from Barsky AJ. Clinical Crossroads: A 37-Year-Old Man With Multiple Somatic Complaints. JAMA 1997; 278: 673-9)

## Management of Chronic Major Somatization\*

### 3) Validation of Distress

Don't refute or negate symptoms  
Patient-physician relationship not predicated on symptoms  
Focus on social history  
Regular visits (not prn) – consider scheduled telephone contacts  
Once set, try not to alter the frequency of visits

(Adapted from Barsky AJ. Clinical Crossroads: A 37-Year-Old Man With Multiple Somatic Complaints. JAMA 1997; 278: 673-9)

## Management of Chronic Major Somatization\*

### 4) Providing a Diagnosis

Emphasize dysfunction rather than structural pathology  
Describe amplification process and provide specific example  
Cautious reassurance  
Introduce stress model of disease, if appropriate

### 5) Psychiatric Consultation

To diagnose psychiatric comorbidity  
For recommendations about pharmacotherapy  
For cognitive-behavioral therapy to improve coping or psychotherapy

(Adapted from Barsky AJ. Clinical Crossroads: A 37-Year-Old Man With Multiple Somatic Complaints. JAMA 1997; 278: 673-9)

## Major Diagnostic Categories

Mood Disorders  
Anxiety Disorders  
Psychotic Disorders  
Somatoform Disorders  
**Substance Abuse Disorders**  
Personality Disorders

## Case Vignette#6

A 44 year-old, divorced, white man presents after crashing his car into a telephone pole. He admits to drinking approximately 4-6 drinks a day for the past ten years with a h/o withdrawal seizures. He reports his last drink was 12 hours ago and that "I'm seeing little bugs again." Patient denies loss of consciousness. Pulse is 120/min and blood pressure is 182/92 mmHg. Except for a moderate tremor, physical examination and routine blood work are unremarkable.

### Case Vignette#6 Question

Which of the following is the LEAST appropriate intervention?

- Admit patient to the hospital
- IV fluids with glucose, followed by thiamine 100mg, multivitamins and folate
- Diazepam 20mg iv
- Head imaging
- Assess hopelessness and future orientation

### Case Vignette#6 Answers Discussed

- Admit patient to the hospital
- IV saline with glucose, followed by thiamine 100mg, multivitamins and folate [give thiamine THEN glucose, don't overhydrate]
- Diazepam 20mg iv
- Head imaging
- Assess hopelessness and future orientation – [assess suicidality]

### Substance Abuse Disorders

- Lifetime incidence: approx. 20%
- Fewer than 10% of affected are in treatment
- No definition for addiction in DSM
- Abuse or dependence
- Practical definition: "persistent usage despite negative consequences" [assess for negative consequences – DUI's, blackouts, CAGE]

### Substance Abuse Disorders\*

Negative consequences:

- Medical: liver, pancreas, stomach, anemia
- Psychiatric: changes in mood, behavior and cognition
- Interpersonal problems
- Occupational problems
- Legal or financial problems

### Substance Abuse Disorders\*

10 groups of drugs listed in the DSM:

"uppers": cocaine, amphetamine, caffeine, nicotine

"downers": alcohol, opioids, benzodiazepines, sedative-hypnotics, barbiturates

Psychotomimetics: cannabis, hallucinogens, inhalants, phencyclidine

### Substance Abuse Disorders

- Can't rely on lab tests (although elevated GGT and MCV are often early signs of alcoholism)
- CAGE questionnaire:  
**C**-Cut down  
**A**-Annoyed  
**G**-Guilty  
**E**-Eye opener  
[yes to any one of these is a positive screen]

### Substance Abuse Disorders Management

- Persistent, supportive encouragement for treatment
- Referrals for AA, group, or residential treatment, or acute detox
- Motivational interviewing
- Psychopharmacology: disulfiram (Antabuse), naltrexone (ReVia), ssri's

### Substance Abuse Disorders Alcohol Withdrawal

- Frequently include insomnia, tachycardia, tremor, headache ("hangover"), gi upset
- In chronic users, withdrawal can progress to seizures, hallucinations and delirium tremens
- Usual onset is within 6 to 48 hours after last ingestion of alcohol

### Substance Abuse Disorders Alcohol Withdrawal

Management of severe withdrawal includes:

- i.v. thiamine (to prevent Wernicke's encephalopathy)
- Glucose
- Longer-acting benzodiazepines: diazepam (Valium), chlordiazepoxide (Librium), lorazepam (Ativan) – lorazepam has limited hepatic clearance
- Dosage: usually based on withdrawal symptoms (chlordiazepoxide 25-100mg qid) for the first 24 hours, then tapered by 20% each day over the 5 days

### Alcohol Dependence/Abuse Outpatient Management

Disulfiram (Antabuse), 250-500mg daily

- inhibits acetaldehyde dehydrogenase, can cause nausea/vomiting, headache, flushing and CV collapse
- initial side effects include: fatigue, metallic taste in the mouth
- can cause liver toxicity so check lft's
- works best in motivated individuals

### Alcohol Dependence/Abuse Outpatient Management

Naltrexone (Revia)

- opioid antagonist, can trigger opiate withdrawal
- black box warning: drug induced hepatitis, check lft's (Vivitrol, naltrexone extended release injectable)

Acamprosate (Campral)

- Amino acid analogue, affects GABA/glutamate neurotransmission
- Diarrhea in 10%
- Not particularly impressive efficacy

### Opiate Dependence/Abuse Pharmacology

Naltrexone (Revia)

Methadone

- Opioid agonist, available only through specialized licensed clinics

Suboxone (buprenorphine/naloxone)

- Buprenorphine – partial opioid agonist
- Addition of naloxone prevents suboxone from being ground up and shot iv
- Suboxone to be take sublingually (naloxone only limited absorption)
- Patients must start with mild withdrawal
- Prescription of suboxone requires special training

## Major Diagnostic Categories

Mood Disorders  
Anxiety Disorders  
Psychotic Disorders  
Somatoform Disorders  
Substance Abuse Disorders  
**Personality Disorders**

## Personality Disorders

Enduring pattern of inner experience and behavior that:

- Deviates markedly from the expectations of the patient's culture
- Is pervasive and inflexible
- Has an onset in adolescence or early adulthood
- Is stable over time
- Leads to distress or impairment

## Personality Disorders\*

Cluster A – Odd or Eccentric  
Paranoid, Schizoid, Schizotypal  
Cluster B – Dramatic, Emotional or Erratic  
Antisocial, Borderline, Histrionic, Narcissistic  
Cluster C – Anxious or Fearful  
Avoidant, Dependent, Obsessive-Compulsive

## Personality Disorders: Management\*

- Respectful, non-judgmental attitude
- Acknowledge affect (emotion)
- Be aware of countertransference (ie, physician's own emotional reactions)
- Set realistic expectations
- Set limits and provide consistent structure
- Maintain professional boundaries
- Label maladaptive behavior(s) of patient
- Seek consultation – colleague, mental health professional

## Personality Disorders: Pharmacotherapy

- Impulsivity: SSRI
- Affective Dysregulation: SSRI, Mood Stabilizers, Low Dose SGA
- Medication choice based more on target symptom, less on diagnosis.

## Suicide

### Case Vignette#7

A 44 year-old, divorced, white man presents after crashing his car into a telephone pole. Physical examination and routine blood work are unremarkable. On further interview, he acknowledges that he has been thinking about committing suicide, but currently denies any current intent or plan to kill himself.

### Case Vignette#7 Question

Which of the following is the LEAST important intervention before discharging the patient from the emergency room?

1. Initiating pharmacotherapy for depression.
2. Ensuring that firearms and lethal medications have been secured or removed from patient's access.
3. Determining that a supportive person is available.
4. Scheduling a follow-up appointment with a mental health professional.
5. Giving the patient the name and number of a clinician who can be called in an emergency

### Case Vignette#7 Answers Discussed

Which of the following is the LEAST important intervention before discharging the patient from the emergency room?

1. Initiating pharmacotherapy for depression.
2. Ensuring that firearms and lethal medications have been secured or removed from patient's access.
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### Suicide

- Number 3 cause of death in young adults, number 11 over all.
- 25,000 deaths per year in the U.S.
- Almost of third of people who kill themselves visit a physician in the week before they die (More than a half visit a physician in the month before they die).
- Most cases do not report suicidal ideation, most are not asked.
- Most cases associated with major psychiatric disorder.
- Doctors twice as likely to kill themselves as the general population.

### Suicide

Evaluate risk factors:

Presenting event (fall from height, single passenger MVA, drug OD)

Prior h/o suicide attempts

Male, living alone

Major psychiatric/medical disorder

Substance abuse/intoxication

Assess hopelessness/depression  
/mania/hypomania/mixed

Still thinking of suicide?

### Suicide Assessment: SAD PERSONS Mnemonic\*

- Sex
- Age
- Depression (especially with global insomnia, severe anhedonia, severe anxiety, agitation, and panic attacks)
- Previous attempt
- Ethanol abuse (recent)
- Rational thought loss
- Social supports lacking
- Organized plan
- No spouse
- Sickness

## Suicide

Before Discharging a patient, Check:

- 1) **Firearms** and lethal **medications** have been secured or removed
- 2) A **supportive person** is available
- 3) A **follow-up appointment** with a mental health professional has been scheduled
- 4) The patient has the **name and number** of a clinician who can be called in an emergency

## Attention Deficit Disorder\*

According to the Diagnostic and Statistical Manual IV-Text Revision ([DSM-IV-TR](#)), the following criteria must be met for a person to be diagnosed with Attention-Deficit / Hyperactivity Disorder.

- I. Either A or B:
  - A. Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is disruptive and inappropriate for developmental level:

### Inattention

1. Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
2. Often has trouble keeping attention on tasks or play activities.
3. Often does not seem to listen when spoken to directly.
4. Often does not follow instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions).
5. Often has trouble organizing activities.
6. Often avoids, dislikes, or doesn't want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).
7. Often loses things needed for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
8. Is often easily distracted.
9. Is often forgetful in daily activities.

## Attention Deficit Disorder\*

- B. Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level:

### Hyperactivity

1. Often fidgets with hands or feet or squirms in seat.
2. Often gets up from seat when remaining in seat is expected.
3. Often runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
4. Often has trouble playing or enjoying leisure activities quietly.
5. Is often "on the go" or often acts as if "driven by a motor".
6. Often talks excessively.

## Attention Deficit Disorder\*

### Impulsivity

1. Often blurts out answers before questions have been finished.
2. Often has trouble waiting one's turn.
3. Often interrupts or intrudes on others (e.g., butts into conversations or games).

### II. Some symptoms that cause impairment were present before age 7 years.

- III. Some impairment from the symptoms is present in two or more settings (e.g. at school/work and at home).
- IV. There must be clear evidence of significant impairment in social, school, or work functioning.
- V. The symptoms do not happen only during the course of a [Pervasive Developmental Disorder](#), [Schizophrenia](#), or other [Psychotic Disorder](#). The symptoms are not better accounted for by another [mental disorder](#) (e.g. [Mood Disorder](#), [Anxiety Disorder](#), [Dissociative Disorder](#), or a [Personality Disorder](#)).

## Attention Deficit Disorder psychopharmacology\*

### Methylphenidates

short-acting: Ritalin, Focalin (dexmethylphenidate), Methylin, Methylin CT (chewable), Methylin oral solution

intermediate-acting: Ritalin SR, Metadate ER, Methylin ER

long-acting: Concerta, Daytrana (transdermal), Focalin XR<sup>^</sup>, Metadate CD<sup>^</sup>, Ritalin LA<sup>^</sup>

<sup>^</sup>comes in beads so can be sprinkled on food

## Attention Deficit Disorder psychopharmacology\*

### Amphetamines (dextroamphetamine)

short-acting: Dexedrine, Dextrostat, Desoxyn (methamphetamine)

intermediate-acting: Adderall (mixed salt)

Long-acting: Dexedrine spansules<sup>^</sup>, Adderall XR<sup>^</sup>

Non-stimulant: Strattera (atomoxetine)

<sup>^</sup>comes in beads so can be sprinkled on food

## Summary

Psychopharmacology in the context of diagnosis/evaluation.

Limits of Psychopharmacology

Role of Patient Values and Preferences