

# Psychiatry Summary

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# Psychosis

<b>Psychosis</b>	is a break from reality involving delusions, perceptual disturbances, and/or disordered thinking
<b>Disordered thought</b>	Disorders of thought <i>content reflect the patient's beliefs, ideas, and interpretations</i> of his or her surroundings
<b>Delusions</b>	Fixed, false beliefs that cannot be altered by rational arguments and cannot be accounted for by the cultural background of the individual
<b>Types of Delusions</b>	<ul style="list-style-type: none"> <li>• Paranoid</li> <li>• Ideas of reference</li> <li>• Thought broadcasting</li> <li>• Grandeur</li> <li>• Guilt</li> </ul>
<b>Hallucination</b>	Sensory perception without an actual external stimulus
<b>Types of Hallucinations</b>	<ul style="list-style-type: none"> <li>• Auditory: Schizophrenia</li> <li>• Visual: Drug intoxication</li> <li>• Olfactory: Epilepsy</li> <li>• Tactile: drug abuse, alcohol withdrawal</li> </ul>
<b>illusion</b>	Misinterpretation of an existing sensory stimulus, as mistaking a shadow for a cat

## Schizophrenia

### Info

- Psychiatric disorder characterized by a **constellation of abnormalities** in thinking, emotion, & behavior. Chronic
- ↑ Serotonic, Norepinephrine, Dopamine, ↓ **GABA**
- **Positive and Negative Sx:**
  - (+ **Sx**): Hallucinations, Delusions, Disorganized speech and behavior, Catatonia
  - (- **Sx 5A's**):  
**A**pathy, **A**ffect, **A**ttention, **A**logia, **A**nhedonia

- Affect lower socio-economic class: Downward drift
- **Dopamine Hypothesis** (Dopamine Pathways)
  - **Pre-frontal cortical**: (-) Sx
  - **Mesolimbic**: (+) Sx
  - **Tuberoinfundibular**: Hyperprolactinemia
  - **Nigrostriatal**: Extrapyrarnidal SE
- **Strong genetic predisposition**:
  - 50% in monozygotic
  - 40% in both parents
  - 12% 1<sup>st</sup> degree relatives
- No Sx is pathognomonic: it is a wide spectrum of clinical pictures, it is **chronic and debilitating**
- Prevalence 1%
- Female = Male
- Age >15 - <45
- Post-Psychotic depression in 50%
- Chronic course

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### Types

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• <b>Phases</b>:           <ul style="list-style-type: none"> <li>- Prodermal</li> <li>- Psychotic (active)</li> <li>- Residual (withdrawal)</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• <b>Subtypes</b>:           <ul style="list-style-type: none"> <li>- Paranoid (best)</li> <li>- Disorganized (worst)</li> <li>- Catatonic</li> <li>- Undifferentiated</li> <li>- Residual</li> </ul> </li> </ul> |
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### Criteria

- 2 or more of the following for at least 1 month:
    - 1) Delusions
    - 2) Hallucinations
    - 3) Disorganized speech
    - 4) Catatonic behavior/Grossly disorganized
    - 5) (-) Sx
  - Early onset
-

**Prognostic Factors (Bad)**

- Low socio-economic status
- Negative Sx
- FHx
- Gradual onset

**Vise-Versa**

- Male sex
- Many relapses
- Poor pre-morbid functioning

**Treatment**

- **Anti-psychotics (Neuro-leptics)**
- **Atypical neuroleptics**
- **Family/Group/Behavioral therapies**

### Schizophreniform

**Criteria**

- Same as Schizophrenia
- Duration 1-6 month (Schizo: >6m)

**Mx** Hospitalization, anti-psychotics, Psychotherapy

### Schizoaffective

**Criteria**

- meet criteria for either MDD, Manic episode, Mixed episode + Schizophrenia

**Mx** Hospitalization, psychotherapy, anti-psychotics, mood stabilizers, anti-depressants, ECT (mania/depress)

### Brief Psychotic Disorders

**Criteria**

- Schizophrenia Sx but duration 1 day – 1 month

**Mx** Psychotherapy, antipsychotics or benzodiazepines (for agitation) and brief hospitalization

### Delusional Disorder

<b>Criteria</b>	<ul style="list-style-type: none"> <li>- Delusions for 1 month</li> <li>- Exclude Schizophrenia</li> <li>- No life impairment</li> </ul>	<ul style="list-style-type: none"> <li>• <b>By the Dr:</b></li> <li>- Mono-delusion</li> <li>- Systematized (Non-pizzare)</li> <li>- Age &gt;40</li> <li>- Sensory Deficit</li> <li>- Functioning Intact</li> <li>- Require Mx</li> </ul>
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<ul style="list-style-type: none"> <li>- Erotomanic (الحب الحب يمّا)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>By the Dr:</b></li> </ul>
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<b>Types</b>	- Grandiose - Somatic (Physical) - Persecutory (مضطهد) - Jealous - Mixed	- Paranoid x Grandiose - Irritomanic x Infidelity - Somatic x Mixed ** <i>Infidelity is the worst!</i>
<b>Mx</b>	- Psychotherapy - Anti-psychotics: mainly ineffective	
<b>Shared Psychotic Disorder</b>		
<b>Mx</b>	Separate, Psychotherapy, antipsychotics	
<b>Prognosis</b>	2-40% recover from separating	

# Anxiety

- Definition**
- subjective experience of fear & physical manifestations
  - more common in females, higher socioeconomics

## Panic Atk & Panic Disorder

	Atk	Disorder
<b>Definition</b>	discrete periods of heightened anxiety that classically occur in pt with panic disorder	Experience of panic attacks accompanied by persistent fear of having additional attacks
<b>Criteria</b>	<p>accompanied by at least 4 of these:</p> <ul style="list-style-type: none"> <li>- palpitations,</li> <li>- sweating,</li> <li>- shaking,</li> <li>- SOB,</li> <li>- chest pain, choking</li> </ul> <p>(Palpitations, abdominal distress, nausea, intense fear of death, chills)</p>	<p>- Spontaneous recurrent panic atk. without precipitant</p> <p>- at least 1 of the atks has been followed by a minimum of 1 month of the following:</p> <ol style="list-style-type: none"> <li>a) persistent concern about having additional attacks,</li> <li>b) worry of atk implications,</li> <li>c) significant change in behavior related to the atk</li> </ol>
	<ul style="list-style-type: none"> <li>• <b>Two types:</b> with/out agoraphobia</li> <li>** Strong genetic component, 2-3x female</li> </ul>	
<b>Panic Disorder</b>	<ul style="list-style-type: none"> <li>• <b>Associations:</b></li> <li>- major depression, substance dependence, substance dependence, social and specific phobias, OCD</li> <li>• chronic, relapses are common</li> </ul>	
<b>Mx</b>	<ul style="list-style-type: none"> <li>• Acute initial ttt: Benzodiazepines, then SSRI</li> <li>• Maintenance: SSRI (Paroxetine – DOC for long ttt)</li> <li>• Treatment for at least 8-12 m &amp; relapses are common</li> <li>• Other: relaxation, biofeedback, cognitive therapy, Insight-oriented psychotherapy, family therapy</li> </ul>	

## Agoraphobia

**Definition** fear of being alone in public places, co-exist with panic

**Mx**

- SSRI (First line)
- Behavioral therapy

## Phobias (Specific, Social)

**Definitions**

- **Phobia**: an irrational fear that leads to avoidance of the feared object or situation, mc mental disorders
- **Specific**: strong fear of a specific situation
- **Social** (Social anxiety): fear of social situations in fear of embarrassment

\*\* Social more common in males, Specific in females

**Causes of phobia**

• Cause of Phobia is multifactorial:

- Genetic
- Behavioral: traumatic events
- Neurochemical: overproduction of adrenergic

**Mx**

- **Special phobia**:
  - No pharmacologic treatment
  - Systemic desensitization + Psychotherapy
  - Short course of benzodiazepines or beta blockers
- **Social**:
  - SSRI (Paroxetine)
  - Beta-blockers
  - Cognitive, behavioral therapy

## OCD

**Definition**

- Obsession: recurrent intrusive thought, feeling, idea
- Compulsion: conscious repetitive behavior linked to obsess (functions that relieve anxiety caused by obsess)

**Patterns**

- 1) Contamination
- 2) Doubt
- 3) Symmetry
- 4) Intrusive thoughts

- Info**
- Epidemiology: Men and females are =
  - Association: MDD, eating disorder, anxiety
  - Cause mainly chronic

- Causes**
- Neurochemical: Abnormal regulation of serotonin
  - Genetic
  - Psychosocial: OCD triggered by stressful events

- Mx**
- SSRI (1<sup>st</sup> line – at high doses - Fluvoxamine)
  - TCA (clomipramine)
  - Behavioral
  - Exposure and response (ERP)
  - ECT, or Cingulotomy (surgery) as last resort

### Generalized Anxiety Disorder (GAD)

**Definition** Persistent, excessive anxiety and hyperarousal for at least 6 months.

- Info**
- Lifetime prevalence: 45%
  - Women predominance
  - Onset commonly <20
  - Associations: Depression, Phobia, Panic
  - Chronic lifelong in 50%

- Mx**
- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• Buspirone</li> <li>• Benzodiazepines</li> <li>• SSRI</li> </ul> | <ul style="list-style-type: none"> <li>• Venlafaxine</li> <li>• Psychotherapy</li> </ul> |
|--|--|

### Post-traumatic Stress Disorder (PTSD)

- Mx**
- TCA – imipramine
  - SSRI, MAOIs
  - Anticonvulsants: for flashbacks and nightmares
  - Psychotherapy, Relaxation training, Support, Family

### Acute Stress Disorder (ASD)

- Mx**
- Same as PTSD

### Adjustment Disorder

- Mx**
- mainly self-limiting: start 3 m after event & end by 6 m
  - Psychotherapy, Group therapy, Pharmacotherapy (Sx)



# Mood Disorders

- Definitions**
- **Mood:** description of one's internal emotional state
  - **Episode:** distinct periods of time in which some abnormal mood is present.
  - Mood Disorders: defined by patterns of mood episodes

- Type of Episodes**
- Depressive
  - Manic: Psychiatric ER
  - Mixed
  - Hypomanic

Depressive Episode Criteria	Manic Episode Criteria
<p>- Must have at least 5 of the following symptoms (must include either #1/2) for atleast a 2 week period:</p> <ol style="list-style-type: none"> <li>1. Depressed mood</li> <li>2. Anhedonia (loss of interest in pleasurable activities)</li> <li>3. Change in appetite or weight</li> <li>4. worthlessness or excessive guilt</li> <li>5. Insomnia or hypersomnia</li> <li>6. Diminished concentration</li> <li>7. Psychomotor agitation or retardation (restlessness/ slow)</li> <li>8. Fatigue or loss of energy</li> <li>9. Recurrent thoughts of death</li> </ol>	<p>- A period of abnormally and persistently elevated, expansive, or irritable mood, lasting at least 1 week and including at least three of the following (four if mood is irritable):</p> <ol style="list-style-type: none"> <li>1. Distractibility</li> <li>2. Inflated selfesteem/grandiosity</li> <li>3. ↑ in goal-directed activity</li> <li>4. ↓ need for sleep</li> <li>5. Flight of ideas</li> <li>6. ↑ talkative or <i>pressured speech</i></li> <li>7. Excessive involvement in pleasurable activities with ↑ risk</li> </ol>
<p><b>Sx of mania "DIG FAST"</b></p> <ul style="list-style-type: none"> <li>• <b>D</b>istractibility</li> <li>• <b>I</b>nsomnia</li> <li>• <b>G</b>randiosity</li> </ul>	<ul style="list-style-type: none"> <li>• <b>F</b>light of ideas</li> <li>• <b>A</b>ctivity/agitation</li> <li>• <b>S</b>peech (pressured)</li> <li>• <b>T</b>houghtlessness</li> </ul>

<b>Mixed</b>	Both manic and MDD
	<b>Hypo-manic</b>
	Last at least 7 days
	Causes severe impairment in social or occupational functioning
	Hospitalization may necessitate
	May have Psychotic features
	<b>Manic</b>
	Last at least 4 days
	Not marked
	No
	No
<b>Major Depressive Disorder (MDD)</b>	
<b>Info</b>	<ul style="list-style-type: none"> <li>• Depressive Episodes + loss of interest activities.</li> <li>• MDD is multifactorial, depression is unknown</li> <li>• Prevalence: 15%, more in females</li> <li>• Self-limiting lasting from 6-13 m</li> </ul>
<b>Criteria</b>	<ul style="list-style-type: none"> <li>• At least 1 major depressive episode</li> <li>• No Hx of mania &amp; Hypomania</li> </ul>
<b>Seasonal Affective Disorder</b>	<i>subtype of MDD in which major depressive episodes occur only during winter months (fewer daylight hours). Patients respond to treatment with light therapy</i>
<b>Associations</b>	<ul style="list-style-type: none"> <li>• Sleep problems: multiple awakening, initial &amp; terminal insomnia, Hypersomnia</li> </ul>
<b>Mx</b>	<ul style="list-style-type: none"> <li>• <b>Anti-depressant:</b> <ul style="list-style-type: none"> <li>- SSRI: safest</li> <li>- TCAs: most lethal in overdose</li> <li>- MAOIs</li> </ul> </li> <li>• <b>Adjuvants:</b> <ul style="list-style-type: none"> <li>- Stimulants: methylphenidate: terminally ill</li> <li>- Anti-psychotics: Lithium, T3, T4</li> </ul> </li> <li>• <b>Psychotherapy</b></li> <li>• <b>Electroconvulsive therapy (ECT):</b> <ul style="list-style-type: none"> <li>- we give atropine, then GA, then muscle relaxant</li> <li>- Common SE: Retrograde amnesia</li> </ul> </li> </ul>

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- Unique types**
- Malencholic: Anhedonia, guilt, anorexia
  - Atypical: Hypersomnia, Hyperphagia, Reactive mood
  - Catatonic: Catalepsy
  - Psychotic: delusions/hallucination

### Bipolar Disorder

#### Bipolar I

**Criteria** only requirement is the one manic or mixed episode

- Info**
- Onset <30 y, women = men, 1% Prevalence
  - Etiology: Multifactorial: biological,, environmental, psychological, genetic
  - Course: chronic with relapses, it has a worse prognosis than MDD (Requires treatment)

- Mx**
- Lithium: mood stabilizer
  - Anticonvulsants: carbamazepine, valporic acid
  - Olanzapine: Atypical antipsychotic
  - Psychotherapy
  - ECT

#### Bipolar II

- Info**
- Prevalence 0.5%, slightly more in women, onset <30
  - everything else same as Bipolar I

**Criteria** Hx of atleast 1 major depressive episodes + at least one **hypomanic** episode. *Remember: If there has been a full manic episode even in Hx, then Dx is not bipolar II, but I*

### Dysthymic Disorder

- Info**
- chronic, mild depression most of the time with no discrete episodes. They rarely need hospitalization
  - **must be for 2 years without interruption of 2 months**
  - must never have had a manic or hypomanic episode (this would make Dx bipolar or cyclothymic, respectively)
  - Prevalence 6%, 2-3x in women, onset <25 (50%)
  - Couse: 20% major depression, 20% bipolar, 25% lifelong Sx
-

- 
- Mx**
- Cognitive therapy
  - Insight psychotherapy
  - Anti-depressants: SSRI, TCA, MAOIs

### **Cyclothymic**

- Info**
- periods of hypomania + mild-moderate depressive Sx
  - Prevalence <1%, onset 15-25, male = female
  - Course: chronic course

- 
- Mx**
- Antimanic agents as Bipolar

# Medications

## Anxiolytics

### Benzodiazepines (BDZs)

- **Long acting:**
  - Diazepam: anxiety, seizures
  - Chlordiazepoxide: alcohol, detoxification
  - Flurazepam: insomnia

#### Examples

- **Intermediate:**
  - Alprazolam: panic atks
  - Clonazepam: panic atks, anxiety
  - Lorazepam: panic atks, alcohol withdrawal
  - Temazepam: Insomnia

- **Short acting:**
  - Oxazepam
  - Triazolam: Insomnia

#### MOA

- Work on GABA

#### Uses

- 1<sup>st</sup> line anxiolytics

#### Advantages

- Safety at high doses (unlike barbiturates)

#### Dis.Adjan.

- Duration: potential tolerance and dependence
- SE: Drowsiness, impairment of intellectual function, reduced motor coordination
- Toxicity: respiratory depression
- Myasthenia gravis: suppressed respiration

### Selective Serotonin Reuptake Inhibitors (SSRI)

#### Examples

- Fluoxetine: longest and most active
- Sertaline: High risk GI disturbance
- Paroxetine: most specific

#### MOA

- Inhibit serotonin reuptake (increase serotonin)
- MC anti-depressant (low SE/cost, safer, pregnancy)

**Uses**

- Anxiety Disorders: OCD, panic, GAD, agoraphobia,..
  - OCD if child: Sertaline > Fluvoxamine > Citalopram
  - Premenstrual dysphoric disorder: Sertaline
  - Impulse control disorder
  - Hypochondriasis & body dysmorphic: Fluoxetine
  - Premature ejaculation: Fluoxetine
  - Autism, ADHD, obesity, eating disorder, migraine..
- 
- less than TCA, MAIO (bcz they are serotonin selective, don't act on histamine, adrenergic, muscarinic)

**SE**

- SE:
  - Sexual dysfunction: so we use Viagra, or metrazepine
  - GI upset: take a meal before drug
  - Akathisia: ttt by BDZ or Beta-blocker, anticholinergic
  - Serotonin syndrome if used with MAOI: we treat by: stopping the drug, ABC, lavage, IV fluid, BDZ, Metazepine, BB, ECT

### Tricyclic Antidepressants (TCA)

**Examples**

- Imipramine: Retarded MDD, GAD, panic, PTSD
- Clomipramide: OCD, most serotonin specific

**MOA**

- inhibit reuptake of norepinephrine, serotonin
- 
- Rarely used as a 1<sup>st</sup> line (high SE, need monitor, lethal, the most cardiotoxic anti-depressant)
  - Started at low dose then gradually increased to avoid anticholinergic effect

**Uses**

- Depression, ADHD, insomnia, compulsive behaviors, pain syndrome, nocturnal enuresis, eating disorder
  - Anxiety disorders:
    - OCD: clomipramine
    - PTSE: imipramine
- 
- Antihistamine: sedation
  - Anti-adrenergic: (CVS effects): arrhythmia,

- SE** tachycardia, ortho-hypotension
- Anti-muscarinic: dry mouth, constipation, urinary retention, blurred vision
  - Lethal at high doses
  - Weight gain
  - Major complications (3Cs: Convulsion, Coma, Cardiotoxicity)

- CI**
- Glaucoma
  - Prostate hypertrophy
  - Pregnancy (dr said its not given)

### **Monoamine Oxidase Inhibitor (MAOI)**

- Examples**
- Phenelzine
  - Tranylcypromine
  - Isocarboxazid

- MOA**
- Irreversibly inhibit enzymes MAO-A, MAO-B
  - MAO-A: serotonin
  - MAO-B: norepinephrine/epinephrine
  - MOA-A/B: Dopamine, Tyramine
  - Inactivate biogenic amines as norepinephrine, serotonin, dopamine, tyramine

- Uses**
- not 1<sup>st</sup> line due to their SE, but effective in refractory:
  - Depression
  - Panic Disorder
  - PTSD
  - ASD
  - Orthostatic hypotension, drowsiness, wt gain, sexual dysfunction, dry mouth, sleep dysfunction

- SE**
- Serotonin syndrome if taken with SSRI
  - Hypertensive crisis: when taken with tyramine rich food or sympathomimetics.
  - Severe anxiety

### **Buspirone**

<b>MOA</b>	Partial agonist on 5HT-1A receptor
<b>Info</b>	<ul style="list-style-type: none"> <li>• slower onset than BHZs</li> <li>• not given with SSRI: Serotonin syndrome</li> <li>• Low abuse potential</li> </ul>
<b>Uses</b>	<ul style="list-style-type: none"> <li>• in Alcoholic</li> <li>• Alternate to BDZ or venlafaxine for GAD</li> </ul>
<b>Beta-Blockers (BB)</b>	
<b>Uses</b>	<ul style="list-style-type: none"> <li>• Useful for autonomic effects of panic atk, anxiety,</li> <li>• Akathesia (SE of typical antipsychotics)</li> </ul>
<b>Topiramate</b>	
<b>MOA</b>	Block Na <sup>+</sup> channel, enhance GABA & inhibit glutamate
<b>Uses</b>	<ul style="list-style-type: none"> <li>• Anticonvulsant</li> <li>• Mood stabilizers</li> <li>• Flashbacks and nightmares in PTSD</li> </ul>
<b>Venlafaxine</b>	
<b>MOA</b>	SnRI, increase serotonin and norepinephrine
<b>Uses</b>	<ul style="list-style-type: none"> <li>• Atypical antidepressant</li> <li>• GAD, panic, social anxiety</li> </ul>
<b>SE</b>	Increase the BP and stomach
<b>Mood Disorders Mx</b>	
<b>Mood Stabilizers (Anti-Manic)</b>	
<b>Uses</b>	<ul style="list-style-type: none"> <li>• Acute mania</li> <li>• Alcoholism</li> <li>• Mental retardation and personality disorders</li> </ul>
<b>Examples</b>	<ul style="list-style-type: none"> <li>• Lithium</li> <li>• Anticonvulsants: Cabamazepine, Valpoic Acid</li> </ul>
<b>Lithium</b>	
<b>Uses</b>	<ul style="list-style-type: none"> <li>• DOC of acute mania</li> <li>• Prophylaxis for mania &amp; depressive episodes in bipolar</li> </ul>
<b>Notes</b>	<ul style="list-style-type: none"> <li>• we must monitor KFT, TFT every 6 months</li> </ul>
<b>MOA</b>	Unknown
<b>SE</b>	<ul style="list-style-type: none"> <li>• high incidence of SE</li> </ul>



- Low Therapeutic index: toxic, lethal levels
- Teratogenic in 1<sup>st</sup> trimester
- Hypothyroidism and nephrogenic Diabetes insipidus

- Toxic levels**
- cause altered mental status, tremors, convulsions, death, so they require monitoring
  - 1) in pts with kidney problems
  - 2) dehydrated patients
  - 3) Drug interaction with diclofenac or indomethacin
  - Mx: normal saline, hemodialysis or peritoneal dialysis

### Carbamazepine (Tegretol)

- Uses**
- Anticonvulsants
  - mainly in mixed, and rapid cycling bipolar
  - used in trigeminal neuralgia, migraines

- MOA**
- block Na<sup>+</sup> channels

- SE**
- Leukopenia
  - Hyponatremia
  - Aplastic anemia
  - **Agranulocytosis**
  - Elevate liver enzymes
  - Teratogenic!!
  - \*\* Require CBC, LFT monitoring

- Notes**
- Recommended for young females (cause Valproic causes Alopecia)

### Valproic Acid (Depakene)

- Uses**
- Anticonvulsants
  - Mixed and rapid cycling

- Notes**
- **Causes Alopecia**

- MOA**
- Unknown, increase CNS by GABA

- SE**
- Hepato-toxicity
  - Thrombocytopenia
  - Teratogenic
  - \*\* Require CBC, LFT monitoring

## Anti-Depressants

**Info** • has no abuse potential or elevate mood

**TCA, SSRI, MAOIs (mentioned above)**

### Atypical Anti-depressants

**SNRIS** Serotonin-norepinephrine reuptake inhibitors: Venlafaxine

**NDRIS** Norepinephrine-dopamine reuptake inhibitors: Bupropion

**SARIS** Serotonin Antagonist and reuptake inhibitors: Nedazodone, Trazodone

**NASAS** Noradrenergic and specific serotonergic: Mirtazapine

## Anti-Psychotics (Neuro-Leptics)

### Traditional, Typical Anti-Psychotics

**Info**

- Classified according to potency
- Dopamine antagonist mainly treats (+) Sx
- High potency require lower doses, vice versa
- Low potency: SE: Anti-cholinergic, anti-histamine
- High potency: Highest incidence Extra-pyramidal SE

	High Potency	Low Potency
<b>Examples</b>	<ul style="list-style-type: none"> <li>• Haloperidol (MC)</li> </ul>	<ul style="list-style-type: none"> <li>• Chlorpromazine</li> <li>• Thioridazine</li> </ul>

• **High Potency: Extra-pyramidal SE:**

a) **Pseudo-parkinsonism**

b) **Dystonia:** sustained contraction

c) **Akathisia:**

- inner feeling of restlessness, Anxiety, restlessness

- Mx:  $\beta$ -blockers, & BNZ

**SE**

d) **Tardive Dyskinesia:**

- writhing movements of mouth and tongue

- caused by prolonged use of anti-psychotics long acting,

- Mx: might be self-limited, treated by: discontinuation of the drug, and anxiolytics

**e) Neuroleptic Malignant Syndrome (NMS):**

- **Definition:** is a life-threatening reaction that can occur

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in response to neuroleptic or antipsychotic medication

- **Mortality Rate:** 20%
- More common in males
- **Sx:** Fever, rigidity, vital signs abnormalities (unstable)
- **Investigations:** WBC elevated, CPK elevated
- **Mx:**
  - a) DC medication
  - b) Antipyretic or Cold compressors
  - c) Refer him to ICU (General Hospital)
  - d) Medications: Dopamine agonists (bromocriptine, Substitute to Dantrolin? orphenadrine BDZ), Muscle relaxant (Dantrolene)

- **Low Potency SE: Anti-HAM SE:**

- Histamine: Sedation, Weight gain, Insomnia
- Adrenergic: Arrhythmia, Tachycardia
- Muscarinic: Dry mouth, constipation & urine retention

### Atypical (Newer) Antipsychotics

#### Info

- Antagonize serotonin, dopamine, mainly (-) Sx
- less extrapyramidal SE, and potent typical SE
- Mainly treat negative Sx, and has less SE

#### Examples

- **Clozapine:**
    - Great effective drug, used in refractory schizophrenia
    - SE: **Agranulocytosis** (High mortality)
    - Agranulocytosis: is an acute condition involving a severe and dangerous leukopenia
    - Agranulocytosis Mx: Stop medication, Antibiotics (for infections), Bone marrow transplant might be needed
  - **Risperidone:**
    - Works on Tuberoinfundibular: SE: Hyperprolactinemia
  - **Olanzapine:** SE: Metabolic Syndrome: DM/HTN
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# Personality Disorders

Cluster A	Cluster B	Cluster C
<ul style="list-style-type: none"> <li>• Schizoid</li> <li>• Schizotypal</li> <li>• Paranoid</li> </ul>	<ul style="list-style-type: none"> <li>• Antisocial</li> <li>• Borderline</li> <li>• Histrionic</li> <li>• Narcissistic</li> </ul>	<ul style="list-style-type: none"> <li>• Avoidant</li> <li>• Dependent</li> <li>• Obsessive</li> </ul>
- Eccentric/perculiar	- Emotional/Dramatic	- Anxious/fearful

• **Personality**: one's set of stable, predictable emotional and behavioral traits

**Definitions** • **Personality Disorders**: deeply ingrained, inflexible patterns of relating to others that are **maladaptive and cause significant impairment in social or occupational functioning**

**Etiology** • **Multi-factorial**: biological, genetic, psychosocial factors  
• **Genetic**: monozygotic x7 times than dizygotic

• all the personality disorders courses are chronic

**Important** • Management:  
- Psychotherapy and Support (for all)  
- Cluster A (we give Anti-Psychotics)  
- Cluster B (we give Anti-depressants)  
- Cluster C (we give Anxiolytics)

## CLUSTER A

### Paranoid Personality Disorder (PPD)

**Definition** distrust and suspiciousness of others, They tend to blame others & seem angry/hostile

• **Men** are more common

**Info** • Prevalence: 0.5-2.5%

• **high in Family members with schizophrenics**

**DDx** **Paranoid schizophrenia**. But unlike schizophrenic pt do not have any fixed delusions & are not frankly psychotic

### Schizoid Personality Disorder

**Definition** lifelong pattern of social withdrawal. They are often perceived as eccentric and reclusive. no desire for close relationships and prefer to be alone

**Info**

- Men x2
- Prevalence: 7%
- No genetic component, or family of schizophrenia

**DDx**

- **Paranoid schizophrenia**:- but unlike schizophrenic patient they do not have any fixed delusions.
- **Schizotypal personality disorder**: do not have the same eccentric behavior or magical thinking

### Schizotypal Personality Disorder

**Definition** pervasive pattern of eccentric behavior and peculiar thought patterns. They are often perceived as strange

**Info**

- They have magical thinking
- Genetic component: more in monozygotics than di
- Prevalence: 3%
- Course: may develop schizophrenia

**DDx**

- **Paranoid schizophrenia**:- but not frankly psychotic.
- **Schizoid personality disorder**: schizoid personality don't have the same eccentric behavior

## CLUSTER B

### Antisocial Personality Disorder

**Definition** refuse to conform to social norms and lack remorse for their actions. They are impulsive, deceitful, and violate, however they appear charming and normal

**Info**

- more in men 3%, than women 1%
- Higher in poor urban areas and prisoners
- Genetic component: 5x in 1<sup>st</sup> relatives

**DDx**

- Drug abuse

### Borderline Personality Disorder (BPD)

**Definition** unstable moods, behaviors, and interpersonal relationships. They feel alone in the world and have problems with self-image. They are impulsive and may have a history of repeated suicide attempts/gestures or episodes of self-mutilation.

- Info**
- more in **women** x2
  - Prevalence: 1-2%
  - **10% suicidal rate**

**DDx** *Schizophrenia: Unlike it, they don't have frank psychosis*

### Histrionic Personality Disorder (HPD)

**Definition** Attention-seeking behavior and excessive emotionality, They are dramatic, and extroverted but are unable to form long-lasting, meaningful relationships. They are often sexually inappropriate and provocative, They use defense mechanism of regression: childlike behaviors

- Info**
- **Women** more common
  - Prevalence: 2-3%

**DDx** *Borderline personality disorder: BPD are likely to suffer from depression & suicide. HPD are more functional*

### Narcissistic Personality Disorder (NPD)

**Definition** sense of superiority, a need for admiration, and a lack of empathy. They consider themselves "special" however, they often have fragile self-esteems

**Prevalence** <1%

**DDx** *Antisocial personality disorder: Both types of patients exploit others, but NPD patients want status and recognition, while antisocial patients want material gain. Narcissistic patients become depressed when they don't get the recognition*

## CLUSTER C

### Avoidant Personality Disorder

**Definition** have a pervasive pattern of social inhibition and an intense fear of rejection. They will avoid situations in which they may be rejected. *These patients desire companionship but are extremely shy and easily injured.*

**Info**

- male/female unknown
- prevalence 1-10%

**DDx**

- Schizoid personality disorder: avoidant personality disorder desire companionship, while schizoid don't
- Social phobia (social anxiety disorder).
- Dependent personality disorder.

### Dependent Personality Disorder

**Definition** poor self-confidence and fear separation. They feel helpless when left alone

**Info**

- Prevalence: 1%
- **Women** more common

**DDx**

- Avoidant personality disorder.
- Borderline and histrionic personality disorder: DPD have a long-lasting relationship, borderline/histrionic are often dependent on other people, but they are unable to maintain a long-lasting relationship.

### Obsessive Compulsive Personality Disorder (OCPD)

**Definition** pervasive pattern of perfectionism, inflexibility, and orderliness. They get so preoccupied with unimportant details. They appear stiff, serious, and formal. They are often successful but have poor interpersonal skills

**Info**

- **Men** more
- Prevalence unknown
- more in oldest child and 1<sup>st</sup> degree relative
- **(OCD)**: OCPD do not have the recurrent obsessions present in obsessive-compulsive disorder. In addition,

**DDx**

the symptoms of OCPD are **ego-syntonic rather than ego-dystonic (OCD)**. That is, **OCD patients** are aware that they have a problem and wish that their thoughts and behaviors would go away.

- **Narcissistic personality disorder**: Both involve assertiveness and achievement, but NPD are motivated by status, whereas OCD are motivated by the work itself.

**Course**

- unpredictable, may lead to OCD or MDD, Schizophrenia

### Not Otherwise Specified (NOS – doesn't meet A,B,C Criteria)

**Includes**

- passive–aggressive personality disorder
- depressive personality disorder,
- sadomasochistic personality disorder, and
- sadistic personality disorder.

### Passive-Aggressive Personality Disorder

**Info**

stubborn, inefficient procrastinators. They alternate between compliance and defiance and passively resist fulfillment of tasks. They frequently make excuses for themselves and lack assertiveness. They attempt to manipulate others to do their chores, errands, and the like, and frequently complain about their own misfortunes



# Eating Disorders

	Anorexia Nervosa	Bulimia Nervosa
<b>Types</b>	<ul style="list-style-type: none"> <li>Restrictive type</li> <li>Purging/Binge eating</li> </ul>	<ul style="list-style-type: none"> <li>Restrictive type</li> <li>Purging/Binge eating</li> </ul>
<b>Complications</b>	<ul style="list-style-type: none"> <li>Amenorrhea</li> <li>Arrhythmia, Cardiac arrest</li> <li>Electrolyte disturbances (everything hypo, except hypercholesterolemia)</li> <li>Osteoporosis</li> </ul>	<ul style="list-style-type: none"> <li>Esophagitis</li> <li>Dental erosions</li> <li>Calloused knuckles</li> <li>Hypochloremia-hypokalemic alkalosis</li> </ul>
<b>Mx</b>	<ul style="list-style-type: none"> <li>Psychotherapy</li> <li>Some anti-depressants</li> </ul>	<ul style="list-style-type: none"> <li>Psychotherapy</li> <li>SSRI (1<sup>st</sup> line), then TCA</li> </ul>
<b>Similarities</b>	<ul style="list-style-type: none"> <li>more in women</li> <li>have disrupted body image</li> <li>They do compensatory behaviors to try and reduce weight</li> </ul>	
<b>Differences</b>	<ul style="list-style-type: none"> <li>Amenorrhea</li> <li>Low BMI</li> <li>Mortality in 10-20%</li> </ul>	<ul style="list-style-type: none"> <li>No Amenorrhea</li> <li>Normal/high BMI</li> <li>Better prognosis</li> </ul>

## Binge Eating Disorder

**Definition** excessive food intake within 2 hours period accompanied by a sense of lack of control, and they don't do any compensatory behavior to try and reduce weight

- Mx**
- Psychotherapy
  - Diet, and exercise
  - Treat co-morbidities
  - Pharmacological:
    - Stimulants: phentermine, amphetamine.
    - Orlistat (xenical): lipase suppression
    - Sibutramine (Meridia): inhibit reuptake of serotonin, dopamine, norepinephrine

# Sleeping Disorders

## Classification

- **Primary:** Dys-somnia, Parasomnia
- **Secondary:** Breathing problems, Circadian rhythm

• Difficulty initiating or maintaining sleep, resulting in daytime drowsiness or difficulty fulfilling tasks. 3 or more in a week for a month

## 1ry Insomnia

- **Mx:**
  - Sleep hygiene measures
  - Medications: Bendadryl, Ambien, Sonata, Desyrel

• At least 1 month of excessive daytime sleepiness or excessive sleep not attributable to anything

## 1ry

## Hypersomnia

- **Mx:**
  - Stimulants: amphetamines
  - SSRI

• Repeated, sudden attacks of sleep in the daytime for at least 3 months, **associated with (5!):**

- 1) Cataplexy
- 2) Short REM Latency
- 3) Sleep paralysis
- 4) Hypnagogic
- 5) Hypnopompic

## Narcolepsy

- **Mx:**
  - Daily naps + Stimulants
  - SSRI + sodium oxalate: for cataplexy

## Breathing related

• Sleep disruption and excessive daytime sleepiness (EDS) caused by abnormal sleep ventilation from either obstructive or central sleep apnea

- **Types:**

1) **Obstructive sleep apnea (OSA):**

ttt. cPAP, remove cause, weight loss

2) **Central sleep apnea (CSA):**

ttt. Mechanical ventilation

- **RF:** anything that might obstruct the airway

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**Circadian  
Rhythm Sleep  
Disorder**

- Disturbance of sleep due to mismatch btw circadian sleep–wake cycle & environmental sleep demands.

- **Subtypes:** jet lag type, shift work type , and delayed sleep or advanced sleep phase type

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**Nightmare  
Disorder**

- Repeated awakenings with recall of extremely frightening dreams Occurs during **REM sleep** and causes significant distress

- **Mx:** none, but maybe TCA

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**Nightmare  
Terror**

- Repeated episodes of apparent fearfulness during sleep, usually beginning with a scream and associated with intense anxiety. Episodes usually occur during the first third of the night during stage 3 or 4 sleep (**non-REM**). Patients are not awake and do not remember the episodes.

- **Mx:** none, but maybe Diazepam

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**Sleep Walking  
(Somnambulism)**

- Repeated episodes of getting out of bed and walking, associated with blank stare and difficulty being awakened

# Substance Related Disorders

**Abuse** the user consumes the **substance** in amounts or with methods which are harmful to themselves or others, and there is no withdrawal Sx

**Dependency** is an adaptive state that develops from repeated **drug** administration, and which results in withdrawal upon cessation of **drug** use

## Alcohol

	<ul style="list-style-type: none"> <li>• Cut down your drinking?</li> </ul>
<b>CAGE</b>	<ul style="list-style-type: none"> <li>• Annoyed by criticism?</li> </ul>
<b>Questionnaire</b>	<ul style="list-style-type: none"> <li>• Guild about drinking?</li> <li>• Eye opener to prevent the shakes?</li> </ul>
<b>Dx</b>	<ul style="list-style-type: none"> <li>• EtOH lvl by air breathalyzer</li> <li>• ABC, electrolytes</li> <li>• Thiamine to prevent or treat Wernicke's encephalo.</li> <li>• Naloxone to reverse opioids effect – acute cases</li> </ul>
<b>Mx</b>	<ul style="list-style-type: none"> <li>• Alcohol (Ethanol) has not antidote</li> <li>• Methanol antidote is Ethanol</li> <li>• Dependency (Chronicity Mx):             <ul style="list-style-type: none"> <li>- Psychotherapy, Help groups</li> <li>- SSRI</li> <li>- Naltrexone – chronic cases, reduce cravings</li> </ul> </li> </ul>
<b>Withdrawal</b>	<ul style="list-style-type: none"> <li>• Insomnia, anorexia, tremor, irritability</li> <li>• Cause: Alcohol withdrawal</li> <li>• life-threatening – Mortality rate: 20%</li> <li>• Difference between Delirium:             <ul style="list-style-type: none"> <li>- Etiology</li> <li>- Tremor presence in Tremens</li> </ul> </li> </ul>
<b>Delirium</b>	
<b>Tremens</b>	

- (DTs)
- Mx:
    - Tapering BDZ
    - Thiamine (B1): for wernicke's, and to reserve memory (because corpus mammillary is affected)
    - Magnesium sulphate (for seizures)

o Delirium:

- hallmark is reduced level of consciousness
- Causes of Delirium:
  - Any extra-cranial pathology affecting CNS intra cranial pathology
  - E.g. Head trauma, F.U.O., Uremia, Pneumonia, Meningitis, Hepatic Encephalopathy
- Mx: Depend on the cause
- Age: pediatrics, geriatrics
- Place: post-operative

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Wernicke's

- caused by Thiamine deficiency
- Sx: Anterograde amnesia, ataxia, confusion, ocular abnormalities

### Cocaine

S/Sx

- might cause CVA, MI

Mx

- mild-moderate agitation: BDZ
- severe agitation: Haloperidol
- Symptomatic Support

- Dependency:

- Psychotherapy, group
- TCAs
- Dopamine agonists: amantadine, bromocriptine

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Cocaine withdrawal Sx

- Called crises, but not life-threatening
- Sx: Malaise, fatigue, depression, hunger, constricted pupils

## Amphetamines

- Captagone can cause dependency like amphetamine
- Methylphenidate: also given for ADHD, it is given in the morning because it cause awakening, and might cause seizures, FTT
- Mx, Presentation: as cocaine

## Sedative Hypnotics (BDZ, Barbiturates)

# Abuse Mx – intoxication:

- BDZ: Flumazenil
- Barbiturates: Sodium bicarbonate

# Withdrawal Sx:

- Autonomic hyperactivity, insomnia, anxiety, tremor, hallucinations
- Mx: long acting BDZ: diazepam + Tegretol/Valproic acid (for seizures)

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### Opiates

- |                       |   |
|-----------------------|---|
| Abuse<br>intoxication | <ul style="list-style-type: none"> <li>• Sx: N/V, constipation, constricted pupils</li> <li>- Cause of death: respiratory arrest</li> <li>• Mx: Naloxone or naltrexone (improve RS depression)</li> </ul> |
|-----------------------|---|

- 
- |            |   |
|------------|---|
| Dependence | <ul style="list-style-type: none"> <li>• Mx: Methadone</li> </ul> |
|------------|---|

- |            |   |
|------------|---|
| Withdrawal | <ul style="list-style-type: none"> <li>• Sx: piloerection, rhinorrhea, lacrimation, sweating, diarrhea</li> <li>• Mx: Clonidine (moderate), Detox + Methadone (Severe)</li> <li>+ Anti-diarrheal</li> </ul> |
|------------|---|

# Somatoform Disorders

Somatoform Disorder	Factitious Disorder	Malingering
Patients present with Physical Sx without organic cause	Intentionally produce medical/psychological Sx, in order to play the role of a sick pt. <i>Primary gain is a prominent feature</i>	the feigning of physical or psychological symptoms in order to achieve personal gain
Patients <i>believe they are ill.</i>	Patients <i>pretend they are ill with no obvious external reward.</i>	Patients pretend they are ill with obvious <i>external incentive.</i>

## Somatoform Disorders

- 1ry gain: expression of unacceptable feelings as physical Sx
- 2ry gain: use of Sx to benefit the patient: e.g. increase attention, less responsibilities
- All somatoform disorders are more in females, except hypochondriasis, and mainly at young ages, also there is major association with Anxiety, depression

Types	Definition	Course	Mx
<b>Somatization</b>	multiple vague complaints involving many organs	Chronic Debilitating	No cure, Psychotherapy, relaxation
<b>Conversion</b>	at least one neurological symptom (sensory/motor) that cannot be explained by a medical disorder	Sx resolve within 1 m, 25% have future episodes	Psychotherapy, hypnosis
<b>Hypochondriasis</b>	prolonged, exaggerated concern about health and possible illness	Episodic	No cure, psychotherapy and insight orientation

<p><b>Body Dysthymic</b></p>	<p>preoccupied with body parts that they perceive as flawed or defective</p>	<p>Chronic</p>	<ul style="list-style-type: none"> <li>• Surgical (not done – Q!, they need psycho-th)</li> <li>• SSRI</li> </ul>
<p><b>Pain Disorder</b></p>	<p>Prolonged, severe discomfort without adequate medical explanation. The pain often co-exists with a medical condition but is not directly caused by it</p>	<p>Chronic, disabling</p>	<ul style="list-style-type: none"> <li>• We don't tend to use Analgesics (dependency)</li> <li>• Psychotherapy, SSRI, TNS, Hypnosis</li> </ul>



# Adjustment Disorders

**Definition** emotional or behavioral Sx that begin within 3 m of stressful life event, & subside within 6 m after cessation

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**Info**

- more in females
- related to stressful conditions that are not life-threatening (unlike PTSD)

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**Subtypes**

- Depressed
- Anxiety
- Mixed (anxiety + depressed)
- Conduct Disturbance
- Mixed (emotion + conduct)
- Unspecific

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**Mx**

- Psychotherapy/Group therapy/Cognitive therapy
- Symptomatic Treatment

# Cognitive Disorders

**Definition** affect memory, orientation, attention, and judgment

**Categories** Dementia, Delirium, Amnesic disorders

## MMSE

- assess a pt cognitive functioning, It tests orientation, registration, attention, calculation, recall, and language

- Perfect score: 30, Dysfunction: <25

	Delirium	Dementia
<b>Definition</b>	Clouding of consciousness	Loss of memory/intellectual
<b>Onset</b>	Acute	Insidious
<b>Duration</b>	Days to weeks	Months to years
<b>Orientation</b>	Impaired	Often impaired
<b>Memory</b>	Immediate/recent impaired	Recent/remote impaired
<b>Hallucinations</b>	Visual are common	Less common
<b>Sx</b>	Worse at night	Stable
<b>Reversibility</b>	Reversible	15% reversible
<b>Awareness</b>	Reduced	Clear

## Dementia

**Definition** impairment of memory and other cognitive functions **without alteration in LOC**

### Info

- increase with age
- Associations: Delusions, hallucinations, Affective Sx

### Causes

- Alzheimer (MC)
- Vascular Dementia (2<sup>nd</sup> MC)
- Major depression (Pseudo-dementia)

### Reversible Causes

- Infections: meningitis, encephalitis
- Drug abuse: Alcohol
- Depression

## Alzheimer

<b>Info</b>	<ul style="list-style-type: none"> <li>• MCC of dementia</li> <li>• more in women</li> <li>• FHx: risk factor</li> <li>• <b>Hallmark</b>: Gradual progressive ↓ of cognitive function</li> <li>• Aphasia, Apraxia, Agnosia</li> </ul>
<b>Mx</b>	<ul style="list-style-type: none"> <li>• no cure</li> <li>• Symptomatic Mx: Anxiety (BDZ), Anti-depressant</li> <li>• Psychotherapy</li> </ul>

## Vascular Dementia

<b>Info</b>	<p>Caused by <u>microvascular disease in the brain</u> that produces multiple small infarcts</p> <ul style="list-style-type: none"> <li>• Same manifestations as Alzheimer</li> </ul>
<b>V.S Alzheimer</b>	<ul style="list-style-type: none"> <li>- Vascular also have focal neurological Sx (Paresthesia, hyper-reflexia)</li> <li>- Greater-personality preservation</li> <li>- <b>Can reduce risk by reducing RF</b></li> </ul>
<b>Dx</b>	MRI
<b>Mx</b>	Same as Alzheimer

## Pick's Disease/Fronto-temporal Dementia (FTD)

<b>Info</b>	<ul style="list-style-type: none"> <li>• slowly progressive dementia, rare cause</li> <li>• Manifestations: as Alzheimer, but personality changes are more prominent early in the disease</li> </ul>
<b>Pathology</b>	Atrophy of frontotemporal lobes, and Pick bodies
<b>Mx</b>	Same as Alzheimer

## Huntington's Disease

<b>Info</b>	<ul style="list-style-type: none"> <li>• AD</li> <li>• Hallmark: progressive dementia, bizarre choreiform movements</li> <li>• Mx: Supportive</li> </ul>
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### Parkinson's

<b>Definition</b>	Progressive disease with <u>prominent neuronal loss in substantia nigra</u>
<b>S/Sx</b>	1. Bradykinesia                      2. Cogwheel rigidity 3. tremor "pill-rolling"      4. Masklike facial expression 5. Shuffling gait                      6. Dysarthria
<b>Mx</b>	Levodopa, Dopamine agonists (bromocriptine), MAO-B

### Creutzfeldt-Jakob Disease (CJD)

<b>Definition</b>	A rapidly progressive, degenerative disease of the central nervous system (CNS) caused by a <i>prion</i>
<b>Hallmark</b>	Rapidly progressive dementia 6-12 m after Sx onset
<b>Mx</b>	No cure, progressive to death within 1 y

### Normal pressure Hydrocephalus (NPH)

<b>Sx Triad</b>	1. <b>W</b> iggly: Gait disturbance (often appears first) 2. <b>W</b> et: Urinary incontinence 3. <b>W</b> ickly: Dementia (mild, insidious onset)
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### DELIRIUM

<b>Definition</b>	<u>acute disorder of cognition related to impairment of cerebral metabolism</u> , with altered LOC
<b>Causes</b>	Drug withdrawal, CNS injury, Hypoxia, Systemic illness, Fever, Electrolytes imbalances
<b>Mx</b>	<ul style="list-style-type: none"> <li>• Mx underlying cause</li> <li>• Psychotherapy and support</li> <li>• Psychotic Sx: Anti-psychotic</li> <li>• Insomnia Mx</li> </ul>

# Child Psychiatry

## Attention Deficit Hyperactivity Disorder (ADHD)

**Criteria** • 6 Sx including inattentiveness, hyperactivity for 6 m  
 - Inattention: listening, concentrating, distracted  
 - Hyperactivity: impulsive, interrupting, talking

**Info** • more in boys, remit in adulthood  
 • Etiology: Multifactorial

**Mx** • Medications: Stimulant, SSRI/TCA  
 • Psychotherapy, Counseling

## Autism

**Criteria** • 6 Sx including problems with  
 a) social,  
 b) communication,  
 c) repetitive movements

**Info** • more in boys  
 • Multifactorial

**Mx** • No cure, we aim for social skills and Sx  
 • Stimulants  
 • Psychotherapy  
 • SSRI

## Enuresis

**Criteria** • Involuntary voiding after age 5  
 • at least 2x a week for 3 months

**Mx** • Behavioral therapy  
 • Anti-diuretics, TCAs

## Encopresis

**Criteria** • Involuntary passage of feces after age 4  
 • at least 1x a month for 3 months

**Mx** • If constipation is the cause: Stool softener + Psychot.

## Selective Mutism

**Info** more in girls, stressful life event, psychotherapy