Schizophrenia and the Psychotic Spectrum Disorders

- **Brief reactive psychosis**: Psychotic symptoms lasting from a few hours to a month; usually some identifiable stressor has precipitated the psychosis.
- **Delusional disorder**: Persistent non-bizarre delusions without bizarre behavior or prominent hallucinations.
- **Schizophrenia**: Disorder of longer than a six (6) month duration with prominent psychotic symptoms.
- **Schizoaffective disorder**: A short episode of schizophrenia; symptom duration of less than six months.
- **Schizoaffective disorder**: Combination of schizophrenic-like symptoms and episodes of a mood disorder, either manic or depressive.
SCHIZOPHRENIA – THE SPLIT MIND

Basic Principles

- Psychotic features of course, but also an impairment in reality testing
- Hyperactivity of dopamine in the limbic pathway
- Subtypes: paranoid, disorganized, catatonic, undifferentiated, residual – going away with DSM 5?
- Onset: Age 18 to mid-20's

SYMPTOM DOMAINS OF SCHIZOPHRENIA
Positive
- Delusions
- Hallucinations
- Exaggerations in language and communication
- Disorganized speech
- Disorganized behavior
- Improve with age

Negative
- Blunted affect
- Emotional withdrawal
- Passivity
- Apathy
- Anhedonia
- Improve with age

Cognitive
- Incoherence
- Loose associations
- Impaired attention, informational processing
- Worsen with age
Thorazine first used in the 1950’s as a post-operative sedative
Thorazine and other antipsychotic agents caused “neurolepsis”
<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Trade Name</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorpromazine</td>
<td>Thorazine</td>
<td>Typical neuroleptic</td>
</tr>
<tr>
<td>Fluphenazine</td>
<td>Prolixin; Permitil</td>
<td>Typical neuroleptic</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>Haldol</td>
<td>Typical neuroleptic</td>
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<td>Loxapine</td>
<td>Loxitane</td>
<td>Typical neuroleptic</td>
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<td>Mesoridazine</td>
<td>Serentil</td>
<td>Typical neuroleptic</td>
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<tr>
<td>Molindone</td>
<td>Moban; Lidone</td>
<td>Typical neuroleptic</td>
</tr>
<tr>
<td>Perphenazine</td>
<td>Trilafon</td>
<td>Typical neuroleptic</td>
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<tr>
<td>Pimozide</td>
<td>Orap</td>
<td>Typical neuroleptic</td>
</tr>
<tr>
<td>Prochlorperazine</td>
<td>Compazine</td>
<td>Typical neuroleptic</td>
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<tr>
<td>Thioridazine</td>
<td>Mellaril</td>
<td>Typical neuroleptic</td>
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<tr>
<td>Thiothixene</td>
<td>Navane</td>
<td>Typical neuroleptic</td>
</tr>
<tr>
<td>Trifluoperazine</td>
<td>Stelazine</td>
<td>Typical neuroleptic</td>
</tr>
</tbody>
</table>

**Side Effects of Conventional Agents**

- Extrapyramidal (EPS)
  - Dystonia – muscle tightening in neck and shoulder accompanied by spasms
  - Parkinsons – tremor, rigidity, shuffling gait, slowed movement
  - Akathisia – intense feeling of restlessness
  - Tardive dyskinesia – involuntary facial movements, including tongue, eyes, and lips
- Anticholinergic – drymouth, blurred vision, constipation, sedation, memory
- Orthostatic hypotension – drop in standing blood pressure
- Tardive dyskinesia – involuntary movements, including tongue, eyes, and lips
- Increased prolactin levels
- NMS

**Management**

- Dose adjustment
- Switching
- Adjunctive medications – antiparkinson agents, Vit B6, melatonin for TD

**Atypical Agents**

- Blockade of dopamine and serotonin receptors
- Significantly reduced risk of tardive dyskinesia; overall better tolerability
- Clozaril is the prototypical agent

- Risperdal
- Zyprexa
- Seroquel
- Fanapt
- Geodon
- Invega
- Saphris
- Abilify
- Seroquel
- Latuda
**Clozaril (clozapine)**
- Miracle for some
- Not a first-line treatment of choice
- FDA approval for treatment of recurrent suicidal behavior in schizophrenics
- Can cause agranulocytosis
- Blood count monitoring necessary weekly for 6 months, every 2 weeks for 6 months, then monthly
- Significant weight gain and very sedating
- Linked to increased risk of Type II diabetes
- Potential for increasing triglycerides and cholesterol

**Risperdal (risperidone)**
- Well accepted for treatment of agitation and aggression in dementia, in spite of black box warning
- Few side effects at low dose
- Above 6 mg/day – EPS
- Long acting Consta

**Zyprexa (olanzapine)**
- Rapid calming for agitation
- Sedating, likely produces most weight gain compared to other antipsychotics
- Linked to increased risk of Type II diabetes (SIG)
- Potential for increasing triglycerides and cholesterol (SIG)
- Lowest discontinuation rate
- Long acting injection: Relprevv
**Seroquel (quetiapine)**
- Efficacy in bipolar depression (XR)
- Essentially no EPS at any dose
- Prescribed routinely as a sleeping pill
- Linked to abuse potential

**Geodon (ziprasidone)**
- Least likely of the atypicals to cause weight gain
- Cardiac safety is a concern
- Available IM

**Abilify (aripiprazole)**
- FDA approved for augmentation in treatment-resistant unipolar depression
- Few side effects
- Not sedating enough in acute agitation
**Invega (paliperidone)**
- Active metabolite of risperidone, extended-release
- Kidney metabolized, fewer drug interactions than risperidone
- Sustenna-LA IM
- More expensive than risperidone for little benefit

**Fanapt (iloperidone)**
- Drug was 15 years in the making and its ownership has been handed off back and forth among several drug companies
- No novel characteristics to speak of clinically
- “Me-too” status

**Saphris (asenapine)**
- Available only as a sublingual tablet; recommended dosing: 5mg twice daily
- Elevated level of EPS (18%) comparable to that of 1st generation antipsychotics
- Weight gain, oral numbness, and sedating
Latuda (lurasidone)
- Gained FDA approval for the treatment of schizophrenia in October, 2010
- Possesses no novel characteristics warranting clinical attention
- No more than a “me-too” antipsychotic

Other Side Effects of the Atypical Agents
- Weight gain
- Sedation
- Insomnia
- Agitation
- Constipation
- Dry mouth

Enhancing Compliance
- Relapse common due to medication non-compliance
- Address prodromal symptoms with client and family
- Discuss the “I’m cured” syndrome
- Emphasize that medication is NOT “poison” or a form of “mind control”
Antipsychotics are often utilized in dementia patients for the management of agitation, irritability and disruptive behavior. These agents carry an FDA black-box warning for the possible risk of sudden death in dementia patients. The risk of death in dementia patients utilizing antipsychotics varies rather widely. Haldol carries the most risk. Nondrug interventions should always come first in elderly dementia patients.

### Dosage Range Chart – Antipsychotic Medications

<table>
<thead>
<tr>
<th>BRAND NAME</th>
<th>GENERIC NAME</th>
<th>CLASS</th>
<th>SUGGESTED ADULT DAILY DOSAGE RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abilify</td>
<td>Aripiprazole</td>
<td>atypical</td>
<td>10 mg - 30 mg</td>
</tr>
<tr>
<td>Clozaril</td>
<td>Clozapine</td>
<td>atypical</td>
<td>300 mg - 600 mg</td>
</tr>
<tr>
<td>Fanapt</td>
<td>Iloperidone</td>
<td>atypical</td>
<td>12 mg – 24 mg</td>
</tr>
<tr>
<td>Geodon</td>
<td>Ziprasidone</td>
<td>atypical</td>
<td>120 mg - 160 mg</td>
</tr>
<tr>
<td>Haldol</td>
<td>Haloperidol</td>
<td>conventional</td>
<td>1 mg – 40 mg</td>
</tr>
<tr>
<td>Invega</td>
<td>Paliperidone</td>
<td>atypical</td>
<td>3 mg – 12 mg</td>
</tr>
<tr>
<td>Latuda</td>
<td>Lurasidone</td>
<td>atypical</td>
<td>40 mg – 120 mg</td>
</tr>
<tr>
<td>Mellaril</td>
<td>Thioridazine</td>
<td>conventional</td>
<td>150 mg – 800 mg</td>
</tr>
<tr>
<td>Moban</td>
<td>Molindone</td>
<td>conventional</td>
<td>20 mg - 225 mg</td>
</tr>
<tr>
<td>Navane</td>
<td>Thiothixene</td>
<td>conventional</td>
<td>10 mg - 60 mg</td>
</tr>
<tr>
<td>Prolixin</td>
<td>Fluphenazine</td>
<td>conventional</td>
<td>3 mg - 45 mg</td>
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<tr>
<td>Risperdal</td>
<td>Risperidone</td>
<td>atypical</td>
<td>4 mg - 16 mg</td>
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<tr>
<td>Saphris</td>
<td>Asenapine</td>
<td>atypical</td>
<td>10 mg – 20 mg</td>
</tr>
<tr>
<td>Seroquel</td>
<td>Quetiapine</td>
<td>atypical</td>
<td>300 mg - 600 mg</td>
</tr>
<tr>
<td>Stelazine</td>
<td>Trifluoperazine</td>
<td>conventional</td>
<td>2 mg - 40 mg</td>
</tr>
<tr>
<td>Thorazine</td>
<td>Chlorpromazine</td>
<td>conventional</td>
<td>60 mg - 800 mg</td>
</tr>
<tr>
<td>Zyprexa</td>
<td>Olanzapine</td>
<td>atypical</td>
<td>5 mg - 20 mg</td>
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