SCHIZOPHRENIA IN LONG-TERM CARE

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DISCLOSURES

- NONE

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OBJECTIVES

- Discuss the psychopharmacologic management of schizophrenic patients in long-term care settings.
- Identify the unique clinical aspects of schizophrenia in late life.

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SCHIZOPHRENIA

- *"Dementia Praecox"*
- Lifetime prevalence of 1% (male=female)
  - 0.1-0.5% of elderly
- Peak age of onset:
  - 10-25 (men)
  - 25-35 (women)

- Ventricular enlargement, cortical atrophy and soft neurological signs.
- *Prodrome* often occurs prior to onset.

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AGE OF ONSET

- Early onset: Up to age 40 (45)
  - 75-80% of cases
- Late onset: 40-60
  - Often female
  - Better prognosis
- Very late onset: 60+
  - Rare
  - More medical co-morbidities

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SCHIZOPHRENIA

- Cause unknown.
- Risk factors:
  - Genetics.
    - 50% concordance monozygotic twins.
  - Winter/spring birth.
  - Influenza during pregnancy.
- Dopamine Hypothesis:
  - Increased limbic, decreased frontal.
  - Other neurotransmitters also implicated

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SCHIZOPHRENIA: DIAGNOSTIC CRITERIA

- 2 or more of following actively occurring over 1 month period:
  - Delusions*
  - Hallucinations*
  - Disorganized speech*
  - Grossly disorganized or catatonic behavior
  - Negative symptoms
- Total duration of illness 6 months or more

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SCHIZOPHRENIA SYMPTOMS

- **Positive** Symptoms:
  - Delusions
  - Hallucinations
  - Disorganized speech
  - Disorganized behavior
- **Negative** Symptoms:
  - **A**ffect flat
  - **A**logia (mute)
  - **A**volition
  - **A**utistic
  - **A**pathy
  - **A**mbivalence
  - **A**nhedonia
  - Etc.

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PSYCHOTIC SYMPTOMS

Schizophrenia:	**Dementia-related psychosis**:
Bizarre or complex delusions	Misidentification
Auditory hallucinations	Well-formed visual hallucinations
Long-term	Usually remits

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COGNITIVE IMPAIRMENT

- More than 70% of schizophrenics affected.
- May be less impactful for late-onset cases.
- May be worse in institutionalized vs. community.
- May affect executive function, memory, IQ, visuospatial function, processing speed, attention, arithmetic and verbal fluency.
- Cognitive abilities may remain stable over the course of the illness in many patients.
  - Those in nursing homes more likely to decline.
- Schizophrenics overall have higher risk of dementia.

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SCHIZOPHRENIA TREATMENT

- Antipsychotic medication:
  - Conventional/Typical (1st Gen)
    - Dopamine (D2) antagonist
  - Novel/Atypical (2nd Gen)
    - Dopamine & serotonin antagonist
- ECT
  - Safe and effective option for older schizophrenics.
- Psychosocial:
  - Social skills training, supported employment, cognitive remediation, psychotherapy, groups.
  - Family support and case management.

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ANTIPSYCHOTICS

First Gen (Typical)

- **Haloperidol** (Haldol)
- **Fluphenazine** (Prolixin)
- **Thiothixine** (Navane)
- **Perphenazine** (Trilafon)
- **Trifluperzaine** (Stelazine)
- **Thioridazine** (Mellaril)
- **Chlorpromazine** (Thorazine)
- **Loxapine** (Loxitane)
- Others

Second Gen (Atypical)

- **Risperidone** (Risperdal)*
- **Olanzapine** (Zyprexa)*
- **Clozapine** (Clozaril)
- **Quetiapine**(Seroquel)
- **Ziprasidone** (Geodon)
- **Apiprazole** (Abilify)
- **Paliperidone** (Invega)
- **Lurasidone** (Latuda)
- **Asenapine** (Saphris)
- **Iloperidone** (Fanapt)
- Others

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EXTRAPYRAMIDAL SIDE EFFECTS (EPS)

Parkinsonism:

- 20-35% overall prevalence
  - Higher for elderly
- Resting tremor
- Rigidity
- Bradykinesia
- Shuffling gait
- Treat with anticholinergic or amantadine.

Other:

- Dystonia (torticollis, oculogyric)
- Drooling
- Akathisia (restlessness)
- Tardive dyskinesia

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TARDIVE DYKINESIA

- Abnormal movements of face/mouth such as lip smacking, clenching, chewing, puckering, and tongue thrusting. May also see choreiform movements in limbs.
- Prevalence 20-30% overall (50-60% for elderly).
- Usually develops over months or years, but sometimes sooner.
- Most cases are irreversible (dopamine receptor sensitivity altered).
- Risk factors: Female, higher negative/positive symptoms, greater cognitive impairment, other drug-induced movements, substance use, diabetes.

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TARDIVE DYSKINESIA: MANAGEMENT

- Prevention: Screening is crucial.
- Choose antipsychotics with less risk. Once TD starts, switching may be ineffective.
- Anticholinergics may worsen; try to eliminate.
- Reduction in dose may worsen.
- Consider severity and impact on patient.
- VAMT2 inhibitors:
  - Valbenazine
  - Deutetrabenazine

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RELATIVE RISK OF EPS FOR ATYPICAL ANTIPSYCHOTICS

Risk:	**Agents:**
Low	Clozapine Quetiapine
Intermediate	Olanzapine
High	Risperidone Ziprasidone Aripiprazole

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NEUROLEPTIC MALIGNANT SYNDROME (NMS)

- Associated with initiation of or increase in antipsychotic.
- High doses or multiple antipsychotics have higher risk.
- **Features:** Confusion, delirium, tremor, stiffness, autonomic instability, fever, death.
- **Creatinine Kinase** markedly elevated; WBC and LFTs may be elevated as well.
- Tx: Stop antipsychotic, admit to medical, supportive measures, may need bromocriptine , dantrolene or amantadine.

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ANTICHOLINERGIC SIDE EFFECTS

- Increased confusion
- Dry mouth
- Blurred vision
- Constipation
- Urine retention

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METABOLIC SYNDROME

- Mainly associated with second generation (atypical) agents.
- Weight gain, hyperlipidemia, hyperglycemia, higher risk of diabetes.
- 32.5% of schizophrenics.
- Metformin may be beneficial.
- **Risk for weight gain:**
  - **Higher** Risk:
    - Olanzapine, clozapine
  - **Medium** Risk:
    - Risperidone, quetiapine, paliperidone
  - **Lower** Risk:
    - Aripiprazole, ziprasidone, lurasidone, asenapine, haloperidol

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OTHER COMPLICATIONS

- Orthostatic hypotension (falls)
- Hyperprolactinemia
- Cardiac conduction (QT prolongation)
- Seizures
- Antihistaminic:
  - Sedation
  - Weight gain

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CLOZAPINE

- May be used in cases of EPS sensitivity or non-response to treatment.
- Requires monitoring of WBC/ANC due to risk of **agranulocytosis** (q 1-4 weeks).
- Other possible liabilities:
  - **Seizure risk**
  - Metabolic
  - Cardiomyopathy
  - Anticholinergic

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LONG-TERM INJECTABLE ANTIPSYCHOTICS

- Haloperidol, risperidone, paliperidone, aripiprazole and others.
- Intervals vary from 2 weeks to 3 months.
- Outcomes in controlled settings may not be superior to oral.

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DEPRESSION

- May be difficult to differentiate from negative symptoms.
- Rule out medical conditions that may mimic depression.
- Not particular agent favored.
- Use atypical antipsychotics.
- Consider psychotherapy.
- Important to treat:
  - Cognition
  - Suicide risk

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SUICIDE RISK

- Suicidal ideation prevalence: 10% current, 56% lifetime.
- Risk factors: Multiple hospitalizations, previous attempts, co-morbid mood and personality disorders, substance abuse.
- Major depression + schizophrenia = greatly increased risk

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SCHIZOPHRENIA: PROGNOSIS

- About 60% of patients have substantial improvement or full remission of positive symptoms on antipsychotic medication.
- Many experience slow functional deterioration over lifetime.
  - Most will not be able to work (unless supported).
  - Less likely to drive, marry, or live independently than bipolar cohorts.
- Lower socioeconomic status: "*Downward Drift*"

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SCHIZOPHRENIA-SPECTRUM DISORDERS

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SCHIZOPHRENIFORM DISORDER

- Same criteria for Schizophrenia, but total duration is less than 6 months.
- Often rapid onset.
- Prognosis is better.
- Treated with antipsychotics, but may not need long term.

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SCHIZOAFFECTIVE DISORDER

- Elements of schizophrenia combined with elements of either bipolar disorder or major depression.
- The mood Sx (mania and/or depression) must account for a substantial portion of the total duration of the illness.
- Patient has periods (2 weeks or more) of psychosis occurring during times when they are not manic or depressed.
- Bipolar/Depressive Types.
  - With catatonia

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SCHIZOAFFECTIVE DISORDER: TREATMENT

- Similar to schizophrenia, but also mood stabilizers and antidepressants.
- Prognosis similar to schizophrenia

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SCHIZOTYPAL PERSONALITY DISORDER

- A pervasive pattern of social and interpersonal deficits marked by acute discomfort with, and reduced capacity for, close relationships as well as by cognitive or perceptual distortions and eccentricities of behavior, beginning by early adulthood and present in a variety of contexts, as indicated by five (or more) of the following:
  - Ideas of reference (excluding delusions).
  - Odd beliefs or magical thinking that influences behavior and is inconsistent with subcultural norms.
  - Unusual perceptual experiences, including bodily illusions.
  - Odd thinking and speech.
  - Suspiciousness or paranoid ideation.
  - Inappropriate or constricted affect.
  - Behavior or appearance that is odd, eccentric, or peculiar.
  - Lack of close friends or confidants other than first-degree relatives.
  - Excessive social anxiety that does not diminish with familiarity and tends to be associated with paranoid fears rather than negative judgments about self.
- Late-onset schizophrenics are often diagnosed with cluster A personality disorders prior to the onset of schizophrenia.

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ISSUES IN LONG-TERM CARE

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NURSING HOMES

- Have become defacto institutions for those with serious mental illness (SMI), following deinstitutionalization and closing of state hospitals.
- In VA system, as inpatient beds and stays decreased, prevalence of SMI in nursing homes increased.
- 2.7-7.1% of nursing home residents have SMI.
- >80% of schizophrenics live in the community.

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NURSING HOMES

- **Residents with SMI more likely to stay long term.**
- **Residents with SMI are younger:**
  - Average age at time of entry is 65 for SMI, and 80 for those who are not SMI.
  - Middle aged patients with schizophrenia are 4 times more likely to need nursing home placement than same-age peers without SMI.
- **Nursing homes with larger percentage of SMI residents tend to be lower in quality:**
  - Staffed at lower levels, higer Medicaid, use restraints more, more ulcers, more feeding tubes, more catheters, more hospitalizations, more deficiency citations.

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NURSING HOMES

- Compared with community cohorts, patients with SMI in nursing homes are more likely to have severe psychiatric symptoms, greater cognitive deficits, more functional and physical impairment, more aggressive behavior, and less social support.
- In nursing homes, those with dementia alone had more aggressive behavior than those who had SMI alone. But those who had dementia AND SMI had the highest rates of all.
- **Challenges:** Training for staff, finding psychiatric providers, developing appropriate activities for younger residents.

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CO-MORBID MEDICAL CONDITIONS

- Tend to be exacerbated by schizophrenia.
- Schizophrenics often receive inadequate healthcare.
- Medications may have long-term effects.
- Substance use (including tobacco) may contribute.

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END-OF-LIFE CARE FOR SCHIZOPHRENICS

- More likely than cohorts to die in nursing homes.
- Less likely to see (non-psychiatric) specialists.
- Less likely to be prescribed analgesics.
- Less likely to receive palliative care.
- Psychiatric medications should be continued as comfort care.

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ANTIPSYCHOTIC REDUCTION

- Length of treatment guidelines vary for all age groups.
- Very little research on reductions for older schizophrenics.
- Risk/benefit analysis is needed (including patient preference).
- Patients on the ends of the severity spectrum may be best candidates.

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ANTIPSYCHOTIC REDUCTION

- For all age groups, following factors are associated with lower rate of relapse after discontinuation:
  - Low dose prior to discontinuation.
  - Older age.
  - Shorter duration of untreated psychosis.
  - Lower severity of positive symptoms.
  - Better social functioning.
  - Lower number of previous relapses.
  - Later onset.

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QUESTIONS?

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