From Sickest to Success: The Changing Paradigm of Antipsychotics in Recovery

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Disclosure

- Presenters have no actual or potential conflict of interest in relation to this presentation.
- Presenters will not discuss off label use and/or investigational use in this presentation.

Objectives

- At the completion of this program, the participant will be able to: For Pharmacists
  - Describe the major advances in psychiatric pharmacotherapy practice over the past 50 years in relation to current practice and innovations.
  - Apply at least one new idea into your practice that supports recovery and reduces stigma in caring for persons with mental illness.
  - Assess use of medications for a person with mental illness that best promotes appropriate and optimal use and adherence.
  - Recognize and effectively manage common drug interactions associated with the treatment of psychiatric disorders.
- At the completion of this program, the participant will be able to: For Technicians
  - List three (3) ways to reduce stigma in your practice regarding persons with mental illness.
  - Assist persons with mental health medications reduce gaps in treatment and navigate issues with obtaining prescription medications.
  - Identify resources in assisting persons with mental health medications choose the optimal method for maintaining medication therapy.
Eastern Washington Hospital for the Insane: 1891-1918
Eastern State Hospital: 1920's - today

Examples of Assigned Causes of Disease of Patients
Admitted Year Ending September, 1903

- Domestic Trouble
- Disappointed in Love
- Epilepsy
- Lead Poisoning
- Morphine
- Neurasthenia
- Overwork
- Paralysis
- Religion
- Scarlet fever
- Senility
- Smallpox
- Syphilis

State-of-the-art Kirkbride Building
Medical Lake Resort

Bath Houses: $7/night  Sanitarium (health-oriented resort): $9/night
Salts made from minerals evaporated from lake water sold around the world

Psychiatric Hospitalization in Eastern Washington

<table>
<thead>
<tr>
<th></th>
<th>1891</th>
<th>1960’s</th>
<th>2010’s</th>
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<tr>
<td>Daily cost of care</td>
<td>$0.43</td>
<td>$225.00</td>
<td>$611.00</td>
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<tr>
<td>Length of stay</td>
<td>12 years</td>
<td>77 days (adult)</td>
<td>210 days (geriatric)</td>
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<td>1994 data</td>
<td>1954-1956</td>
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<td>Census</td>
<td>400</td>
<td>Peak in 1954, 2,274</td>
<td>300</td>
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<tr>
<td></td>
<td>56 staff</td>
<td>700+ staff</td>
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Peak in 1954, 2,274
300
700+ staff
Evolution of Psychiatric Care

• Clifford Whittingham Beers (March 30, 1876 – July 9, 1943)

1909
Clifford Beers, ex-mental health patient and author of A Mind That Found Itself founded the Committee for Mental Hygiene.

Evolution of Psychiatric Care

• ESH 1891-1941: Custodial Phase. Patients worked, self-contained. Given numbers (to protect family from stigma).
  • Therapy: convulsive therapy (insulin or electric), hydrotherapy

Evolution of Psychiatric Care

• 1954: Chemotherapy Phase
  • DSM I & II

• 1960’s: Community Mental Health Movement

• 1980-2000’s
  • DSM III & IV
• 1950’s
  • considered a biological condition, or reactive (neurotic), a reaction to stressful events

• Later 20th Century
  • a chemical imbalance in neurotransmitters in the brain

Evolution of Psychiatric Care
• 2010’s: Recovery Model

Does mental illness really look like this?
• Remember media’s major goal: $$$
• Schizophrenia: “split mind” (1911)
“paranoid schizophrenia” does not exist in DSM-5 as of 2013

- DSM-5 Schizophrenia Spectrum Disorders
  - Schizotypal Personality Disorder
  - Delusional Disorder
  - Brief Psychiatric Disorder
  - Schizophreniform Disorder
  - Schizoaffective Disorder
  - Schizophrenia
  - Paranoid Schizophrenia still a billable ICD-10 code


Facts about Mental Illness

- 21% of US adults will suffer from mental illness in the next 12 months (Finley PR. Pharmacotherapy, 2003)
- Depression: leading cause of disability
- Psychotic disorders: 1% of world population
- Mood disorders: 1-5%
- Treatment works! 70-90% effective

Source: British Columbia Schizophrenia Society, April 2001
Experiencing Psychosis

- “Sights and Sounds of Schizophrenia”: National Public Radio, 2002

Symptoms of Schizophrenia

- Positive Symptoms
- Negative Symptoms
- Anxiety/depression
- Cognitive Symptoms
- Aggression
USA TODAY (2007)
“Mentally ill die 25 years earlier, on average”
• Adults with serious mental illnesses treated in public systems
• Gap widened since the early 1990’s when difference was 10-15 years
• 3 out of 5 die from preventable diseases
• Any thoughts on WHY?
  • What can WE do about it?
Quiz

• Put in order of when the following events occurred.

A. DSM-III published
B. Antipsychotic therapy utilized as cornerstone of psychiatric therapy
C. Clifford W. Beers founded the Committee for Mental Hygiene
D. ECT started to be utilized for psychiatric care

Quiz answer

• Put in order of when the following events occurred.

• C. Clifford W. Beers founded the Committee for Mental Hygiene (1913)
• D. ECT started to be utilized for psychiatric care (1930’s)
• B. Antipsychotic therapy utilized as cornerstone of psychiatric therapy (1960’s)
• A. DSM-III published (1980)

Recovery Model
Myth or Fact?

Rate the following statements as either MYTH or FACT:

- A. All people on antipsychotics have schizophrenia.
- B. Antipsychotics cause different amounts of weight gain.
- C. Antipsychotics are the ONLY way to treat mental illness.
- D. Oral and injectable antipsychotics are available.

WORLD OF ATYPICAL ANTIPSYCHOTICS
Enter Antipsychotics

Typical Antipsychotics
“1st Generation”, “Conventionals”
- Prototype: Haloperidol
  - DA-1, 2 blockade: relief of symptoms, EPS
  - H1 blockade: drowsiness, weight gain
  - M1 blockade: anticholinergic, confusion
  - α1 & α2 blockade: dizziness, postural hypotension, tachycardia, sexual dysfunction, may help with negative symptoms

Atypical Antipsychotics
- MOA: Ideally, blocks SHT-2a >> DA-2
  - Reality: blocks DA-1, 2, 3, 4, SHT1-7, M1, H1, NE, α1 & 2
  - Other systems effected: Prolactin, endocrine?
Etiology: The Dopamine Theory

Antipsychotic Pearls

- **Clozapine (Clozaril)**
  - For treatment-resistant schizophrenia; reduce risk of suicidal behavior in schizophrenia or schizoaffective disorder
  - Least EPS
  - Hypersalivation, sedation, weight gain...
  - **Black boxes:** bradycardia, cardiomyopathy, dementia, myocarditis, neutropenia, orthostatic hypotension, seizures, syncope

- **Risperidone (Risperdal)**
  - Risk of EPS increases over 6-8mg/day
  - Prolactin elevation
  - 50mg Consta® injection = 4mg oral/day
  - Maximum recommended dose in elderly: 2mg/day

- **Olanzapine (Zyprexa)**
  - Cigarette smoking increases clearance 30-50%
  - Dosing up to 40mg/day
  - Long-acting 4 week injection (Relprevv) – requires 3 hours monitoring post-injection

- **Quetiapine (Seroquel)**
  - Only FDA approved drug for this bipolar II depression
  - Low EPS
  - If using “SR”, give in evening vs. HS

- **Ziprasidone (Geodon)**
  - **GIVE WITH FOOD!** (Increases absorption)

- **Aripiprazole (Abilify)**
  - Long-acting IM injection: Maintena (q4weeks)
Antipsychotic Pearls

- Paliperidone (Invega)
  - OROS delivery system
  - May be useful for patients with liver damage
  - Long-acting IM injection, Sustenna (every 4 weeks)
- Lurasidone (Latuda)
  - Administer with 350 calories
- Iloperidone (Fanapt)
- Asenapine (Saphris)
  - <2% bioavailability when swallowed
  - Sub-lingual: no food, water for at least 10 minutes after dose.
  - Black cherry flavor more tolerable
- Cariprazine (Vraylar)
  - Adverse effects may show up late, accumulation of parent compound and metabolite

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REMS, Black boxes & smoking

- Clozapine REMS
- Inhaled loxapine REMS
- Olanzapine long-acting injection (Zyprexa Relprevv) REMS
- Black box warnings: class effect
  - Dementia
  - Suicidal Ideation

Hypothetical Thresholds for Antipsychotic Drug Effects

Adapted from Fels et al. 1992
Assessing Extra-Pyramidal Symptoms

- Abnormal Involuntary Movement Scale (AIMS)
  - Standardized scale
  - Overviews patient severity of movements
  - Breaks down by body areas
  - Inter-rater reliability

Drug-Induced Weight Gain

- All antipsychotics (except molindone and possibly pimozide) associated with weight gain
- Class labeling
- Most ▶ Least
  - Clozapine >Olanzapine >Quetiapine >Risperidone >Paliperidone >Ziprasidone ▶ Aripiprazole

Recommended Monitoring Protocol: Atypical antipsychotics

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Adapted from: Diabetes Care, Vol. 27, Number 2, February 2004
Myth or Fact: Answers

- Rate the following statements as either MYTH or FACT:
  
  • A. All people on antipsychotics have schizophrenia. **MYTH**
  
  • B. Antipsychotics cause different amounts of weight gain. **FACT**
  
  • C. Antipsychotics are the ONLY way to treat mental illness. **MYTH**
  
  • D. Oral and injectable antipsychotics are available. **FACT**

Survey Question

- Which of the following services is/are CURRENTLY offered at your practice site?
  
  1. Long-acting antipsychotic injection administration
  2. Synchronization of medication fills/refills
  3. Specialty packaging options (ex. bubble packing or weekly medi-sets)
  4. Transportation solutions (ex. mail or delivery service for medications)
  5. On-line or Smartphone medication re-ordering

Medication Access

- Insurance
  - Discharge from hospital
  - Changes during the year (mental health clients)

- Transportation

  - Security
  - Bubble packing offers assistance with adherence
  - ...and limits amount of medication on-hand
FUTURE OF MENTAL HEALTH PHARMACOTHERAPY...

Newly approved TD drug

• Valbenazine (Ingrezza 40mg capsules)
• First FDA-approved drug therapy for Tardive Dyskinesia
• Approved April, 2017
• 40mg once daily, may increase to 80mg daily after 1 week
Pharmacogenetics

DECEMBER 2016

Transitions

"It's A Good Thing To Be There For People In Need"

Pharmacogenomics (also known as pharmacogenetics) is a medical subspecialty for people with certain diseases. Some days, she thinks she's doing a great job in helping the patients diagnosed with mental illness.

Thoughlexicon describes that struggle was often, the patients saw themselves as being whipped down in the picture. "I'm not just the next," the police, and "It was harder to feel for her and an improve for others."

Now in his first, she tells nothing about how the patients, depressed, and sometimes, beautiful, not falling for it. Not only that, but in the same community, but now I feel is easier and improved, in the same community.

"The mission is the only thing that attracted me to my job."

"It was a huge step of faith..."

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