Introduction to Psychopharmacological Treatments

Jonathan Bolton MD
University of New Mexico
Overview of Series:
Syndromes and Clinical Problems
Syndrome
  Diagnosis
    Symptoms
    Screening
    Differential Diagnosis

Treatment
  Psychotherapy
  Somatic therapies
    Classes
    Algorhythm
    Effectiveness
  Risks
  Monitoring
  Special situations
Example: Depression

Symptoms: Depressed mood, neurovegetative symptoms, anhedonia,

Screening: SIGECAPS
Clinician-administered: Hamilton Depression Scale
Pt-completed: Beck Depression Inventory,

Differential: Major Depressive Disorder, Dysthymia, Bipolar Depression,
Depression due to General Medical Condition, Drug intoxication/withdrawal, Demoralization,

Treatment: Psychotherapy: Interpersonal, Cognitive,
Somatic therapy: Medications (SSRI, SNRI, TCA, MAOI, etc)
Phototherapy, ECT, DBS, VNS

Effectiveness: Moderate to High

Risks: Side effects (sexual, weight gain, etc.)
‘Switching’ into mania; suicide; stigmatization
Objectives:
Learn how to identify common psychiatric syndromes in clinical settings
Learn the differential diagnosis for each syndrome
Learn the first and second line treatments
Learn how to prescribe common psychotropic medications
Learn the common-but-not-serious and the uncommon-but-serious side effects and risks
Introductory Webinar
Present an overview of somatic treatments of mental illness

Overview of the history of psychopharmacology

Recent trends in prescribing psychotropics

Controversies in Psychopharmacology

First issue: to prescribe or not to prescribe
Somatic Therapies

- Mechanical
- Electrical
- Hydrotherapy
- Sleep therapy
- Injections
- ‘Shock’ therapies
- Surgery
- Medications
Vagal Nerve Stimulation
Deep Brain Stimulation

- Lead
- Electrode
- Thalamus
- Extension
- Pulse Generator
1944
Methylphenidate

1948
Cade discovers antimanic effects of lithium

1952
Antipsychotic effects of Chlorpromazine described

1956
Antidepressant effects of imipramine described

1958
Haloperidol

1961
Amitriptyline/Elavil

1963
Diazepam/Valium

1985
Bupropion/Wellbutrin

1988
Fluoxetine/Prozac

1990
Mirtazapine/Remeron

1993
Venlafaxine/Effexor

1997
Olanzapine/Zyprexa

1997
Quetiapine/Seroquel
Psychotropic Classes

• Antidepressants
• Anti-manic medications (‘mood stabilizers’)
  Antipsychotic medications
• Anxiolytics
  Sedative/Hypnotics
• Psychostimulants
Uses of Psychotropic Medications

Depression
Panic
Generalized Anxiety
Obsessive Compulsive Disorder
Bulimia
Premenstrual Dysphoria
Trichotillomania
Pseudobulbar Affect
Pain/Headaches
Insomnia
Smoking Cessation
PTSD
Enuresis
Uses of Psychotropic Medications

**Antipsychotics**
- Psychosis
- Bipolar Depression
- Mania
- Anxiety
- Delirium
- Agitation
- Dyssomnia
- Hyperemesis gravidarum
- Tics
- Depression (adjunctive)
- Eating Disorders
Trends in Psychotropic Medication

Increased rate of treatment for mental illness: 12% to 20% (1990-2003)

Increased use of psychotropic medications
  11% of Americans over 12 yo take antidepressants
  (Second only to statins, 2010)

Most (80%) prescriptions are written by non-psychiatrists
Concerns

• Inappropriate Prescribing
  • Over-diagnosis of distress as mental illness
  • Over-reaction to mental distress
  • Use of inappropriate/less appropriate medications

• Polypharmacy

• Use by children

• Reduction in use of alternative approaches, e.g., Psychotherapy
Pharmacological Calvinism  Psychotropic Hedonism

Klerman 1972
Should

Don’t

X

Shouldn’t

Do

Don’t

Should
A brain = $10^{12}$ neurons

Each neuron connects to 7000 other neurons

Total number of neural connections in the brain: $10,000,000,000,000,000$