Drugs for Emotional and Mood Disorders
Chapter 16
NCLEX-RN Review

Question 1 – Choices

Please note Question #1 at the end of Ch 16 pg 202 & Key pg 805 – answer is #4

1. Psychomotor symptoms
2. Tachycardia, hypertension, and increase in respiratory rate
3. Tardive dyskinesias
4. Blurred vision, dry mouth, and constipation, also: urinary retention is a common one, especially in geriatrics
NCLEX-RN Review
Question 1 – Answer

1. Incorrect - Psychomotor symptoms

2. Tachycardia, hypertension, and increase in respiratory rate

3. Tardive dyskinesias

4. Correct: Blurred vision, dry mouth, and constipation
Rationale: Anticholinergic effects such as blurred vision, dry mouth, and constipation may occur during the first weeks of therapy. Tolerance to anticholinergic effects tends to develop after several weeks of regular use. They can be managed symptomatically by increasing fluid intake, being cautious with activities that require visual acuity (e.g., driving), and increasing fiber in the diet.
Psychomotor symptoms, tachycardia, hypertension, increase in respiratory rate, and tardive dyskinesias are potential adverse effects of TCA antidepressants but are not related to anticholinergic effects.

*Cognitive Level: Application*

*Nursing Process: Implementation*

*Patient Need: Physiological Integrity*
http://www.medicalnewstoday.com/articles/232311.php

59.5% of antidepressant prescriptions were made with no diagnosis in 1996, in 2007 the figure rose to 72.7%, researchers reported in Health Affairs. Antidepressant drugs are today the third most commonly prescribed class of drugs in the USA.
• Nearly 8.9% of the American population had at least one antidepressant prescription during any given month during the period 2005-2008.

• A good proportion of this growth in antidepressant prescription has been by non-specialist providers whose patients were not diagnosed by a psychiatrist.
• There are many side effects, adverse effects, nursing implications for the drugs given for emotional and mood disorders.
Depression

• Characterized by sad or despondent mood
• Many symptoms associated with depression
  – Lack of energy, sleep disturbances, abnormal eating patterns
  – Feelings of despair, guilt, hopelessness
• Most common mental health disorder of elderly adults
• There is a difference in “feeling depressed” and having a diagnosable clinical depression, or mood disorder.

• DSM-IV TR
  http://www.psych.org/MainMenu/Research/DSMIV/DSMIVTR.aspx
Other Forms of Depression

• Postpartum Depression
  – Intense mood changes associated with hormonal changes

• Seasonal Affective Disorder (SAD)
  – Enhanced release of melatonin due to lower light levels

• Psychotic Depression
  – Intense mood shifts; unusual behaviors
Bipolar Disorder

• Once known as manic-depression
• Characterized by extreme and opposite moods
  – episodes of depression alternating with episodes of mania
• Depressive symptoms are
  – Lack of energy, sleep disturbances, abnormal eating patterns
  – Feelings of despair, guilt, and hopelessness
Bipolar Disorder (cont'd)

• Mania symptoms are
  – Inflated self-esteem or grandiosity
  – Decreased need for sleep
  – Increased talkativeness
  – Flight of ideas; subjective feeling that thoughts are racing
  – Distractibility
Bipolar Disorder (cont'd)

• Mania symptoms are
  – Increased goal-directed activity
  – Excessive involvement in pleasurable activities that have high potential for painful consequences
Attention-Deficit/Hyperactivity Disorder (ADHD)

• Behavioral disorder
• Developmentally inappropriate behaviors involving:
  – Easy distractibility
  – Failure to receive or follow instruction
  – Inability to focus on one task at a time
  – Difficulty remembering
  – Excessive talking; interrupting
Attention-Deficit/Hyperactivity Disorder (ADHD) (cont'd)

• Developmentally inappropriate behaviors involving:
  – Inability to sit still
  – Impulsiveness
  – Sleep disturbance
Major Depressive Disorder

- Diagnosis: a depressed affect plus 5 of the following symptoms for a minimum of 2 weeks
  - Difficulty sleeping or sleeping too much
  - Extremely tired; without energy
  - Vague physical symptoms
  - Inability to concentrate or make decisions
  - Feelings of despair, guilt, misery; lack of self worth
Major Depressive Disorder (cont'd)

• Diagnosis: a depressed affect plus 5 of the following symptoms for a minimum of 2 weeks
  – Obsession with death
  – Avoidance of psychosocial and interpersonal interactions
  – Lack of interest in personal appearance or sex
  – Delusions or hallucinations
Treatment

• Severe depressive illness generally requires both medication and psychotherapy
  – Interpersonal and cognitive-behavioral
  – Psychodynamic therapies

• Electroconvulsive therapy (ECT) may be used in those unresponsive to pharmacotherapy
Role of the Nurse

• Obtain careful drug history
• Rule out medical and neurologic causes
• Ask about alcohol and drug use; suicidal ideation
• Obtain family history of depressive illness
Role of Nurse (cont'd)

• Obtain V/S, liver- and renal-function tests, cardiovascular status, body weight
• Monitor therapeutic blood levels as treatment continues
Education and Role of Nurse

• Provide diet education related to foods that contain tyramine (MAOI drugs)
• Provide information on signs and symptoms of dehydration and lithium toxicity
• Provide education on prescribed drug treatment
Antidepressants

• Monitor vital signs
• Monitor for dizziness, headache, tremor, nausea/vomiting
• Monitor for anxiety, disorientation, hyperreflexia (exaggeration of reflexes, sometimes due to excessive activity of the sympathetic nervous system; autonomic dysreflexia), diaphoresis, and fever
• Monitor neurologic and cardiovascular status
Antidepressants (cont'd)

- Monitor mental and emotional status
- Monitor for underlying psychoses
- Monitor sleep-wake cycle
- Monitor renal and gastrointestinal status
- Monitor liver function and hematologic status
- Monitor visual acuity
- Ensure patient safety
Mood Stabilizers

• Monitor mental and emotional status
• Monitor electrolyte balance, fluid balance, and I&O
• Monitor renal, cardiovascular, gastrointestinal status
Attention-Deficit/Hyperactivity Disorder

- Monitor mental status
- Monitor vital signs, gastrointestinal, nutritional status
- Monitor laboratory tests
- Monitor effectiveness of drug therapy
- Monitor growth and development, sleep-wake cycle
16.1 Antidepressant Therapy Is Directed Toward the Amelioration of Depressive Symptoms

Presynaptic terminal

Norepinephrine (NE) or serotonin (5-HT)

Tricyclic antidepressants inhibit the uptake of NE and 5-HT into the presynaptic terminal; thus effects are more dramatic.

Postsynaptic receptor for NE or 5-HT

Tryptophan

Serotonin (5-HT)

Normally:
1. 5-HT is released.
2. 5-HT binds to its postsynaptic receptor.
3. 5-HT binds to its presynaptic receptor.
4. Step 3 results in less 5-HT being released.
5. If serotonin uptake is blocked, more 5-HT will be available in the synaptic space.

The chemical name for serotonin

5-HT = 5-Hydroxytryptamine
TCAs produce their effects by inhibiting the reuptake of neurotransmitters into presynaptic nerve terminals. The affected neurotransmitters are norepinephrine and serotonin. SNRIs have a similar mechanism. Their chemical structures are different from the TCAs.

SSRIs block the reuptake of serotonin into presynaptic nerve terminals. Increased levels of serotonin induce complex changes in presynaptic and postsynaptic neurons of the brain. Presynaptic receptors become less sensitive and postsynaptic receptors become more sensitive.
Pharmacotherapy Illustrated

MAOIs inhibit MAO enzyme activity inside presynaptic nerve terminals. Through enzyme activity, norepinephrine and other neurotransmitters are degraded. MAOIs have an effect of enhanced catecholamine release.

Enzymes that terminate the action of norepinephrine

MAO = Monoamine oxidase
COMT = Catecholamine O-methyl transferase

1. NE is released.
2. NE binds with its receptor.
3. The action of NE is terminated by MAO and COMT.
4. If MAO is inhibited, NE is not broken down as quickly and produces a more dramatic effect.
Trycyclic Antidepressants

- **Prototype drug:** imipramine (Trofranil)
- **Mechanism of action:** to inhibit reuptake of norepinephrine and serotonin
- **Primary use:** for major depression
- **Adverse effects:** orthostatic hypotension, sedation and anticholinergic effect; rarely, cardiac dysrhythmias
Selective Serotonin Reuptake Inhibitors (SSRIs)

• **Prototype drug:** sertraline (Zoloft)

• **Mechanism of action:** to slow the reuptake of serotonin

• **Primary use:** depression

• **Adverse effects:** sexual dysfunction, nausea, headache, weight gain, anxiety, insomnia

• **Less common side effects:** sedation, anticholinergic effects, sympathomimetic effects
Atypical Antidepressants: Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)

- **Prototype drug:** bupropion (Wellbutrin)
- **Mechanism of action:** to inhibit reuptake of serotonin
- **Primary use:** for depression
- **Adverse effects:** headache, insomnia, hypertension
MAO Inhibitors (MAOIs)

- **Prototype drug**: phenelzine (Nardil)
- **Mechanism of action**: to decrease effectiveness of monoamine oxidase
- **Primary use**: for depression
- **Adverse effects**: orthostatic hypotension, headache, insomnia, and diarrhea;
  - Also interact with a large number of foods and other medications, particularly OTC cold meds
    - Hypertensive crisis can result from interaction of MAOIs and food containing tyramine
Mood Stabilizers

• **Prototype drug:** lithium carbonate (Eskalith)
• **Mechanism of action:** affects sodium transport across cell membranes
• **Primary use:** bipolar disorder
• **Adverse effects:** excessive loss of sodium
CNS Stimulants

- **Prototype drug:** methylphenidate hydrochloride (Ritalin)
- **Mechanism of action:** heightens awareness, increases focus
- **Primary use:** to treat attention-deficit/hyperactivity disorder (ADHD)
- **Adverse effects:** insomnia, nervousness, anorexia, weight loss
Trycyclic Antidepressants

- Work by inhibiting presynaptic reuptake of norepinephrine and serotonin
  - **Examples:** Elavil, Ludiomil, Asendin
Selective Serotonin Reuptake Inhibitors (SSRIs)

- Work by slowing reuptake of serotonin into presynaptic nerve terminals
- **Examples**: Celexa, Lexapro, Paxil
Atypical Antidepressants

- Work by inhibiting reuptake of serotonin, affecting norepinephrine and dopamine activity
- **Examples:** Remeron, Cymbalta, Effexor
MAO Inhibitors

• Decrease the effectiveness of monoamine oxidase

• **Examples:** Marplan, Nardil, Parnate
Mood Stabilizers

• Work by transporting sodium across cell membranes

• **Example:** lithium carbonate (Eskalith)
CNS Stimulants

• Work by heightening awareness and increasing focus

• **Examples:** Adderall, Dexedrine, Desoxyn
Drug Therapy for Mood and Emotional Disorders

• **Assessment**
  – Assess health history, need for antidepressant therapy
  – Obtain drug history
  – Ask client about suicidal ideation.
  – Obtain history of any disorders of eating and sexual function
Drug Therapy for Mood and Emotional Disorders (cont'd)

• Assessment
  – Obtain laboratory tests, vital signs, and body weight.
  – Monitor therapeutic blood levels as treatment continues
Drug Therapy for Mood and Emotional Disorders (cont'd)

• Nursing diagnosis
  – Ineffective coping
  – Disturbed thought processes related to side effects of drug
  – Knowledge deficient, related to drug therapy
Drug Therapy for Mood and Emotional Disorders (cont'd)

• Planning
  – Goals: client able to explain depression and medications to treat condition
Drug Therapy for Mood and Emotional Disorders (cont'd)

• Implementation
  – Encourage compliance with medication regimen
  – Provide education with clinical pharmacist and dietician
Drug Therapy for Mood and Emotional Disorders (cont'd)

• Evaluation
  – Control symptoms of emotional and mood disorders
  – Have limited side effects, no organ damage, no injury
  – Clients able to verbalize importance of taking medications - **compliance**