

# Medications

As of 4 Feb 2015

# PowerPoint

- This PowerPoint is weak as to the source of the answers. Many relied upon THE PRESCRIBER'S GUIDE.

# Metabolism of Contraceptives

Q. List some meds that increase the metabolism of oral contraceptives.

# Metabolism of Oral Contraceptives

Ans.

Carbamazepine

Oxcarbazepine

Topiramate

[probably others]

# Gabapentin

Ans.

1] partial seizures

2] post-herpetic neuralgia

[shorter list than many of us would have  
thought]

# Action of Benzodiazepines

Q. What is the action of benzodiazepine?

# Action of Benzodiazepines

Ans.

Binds to the benzodiazepine receptors at the GABA-A ligand-gated chloride channel complex leading to enhancing the inhibitory effects of GABA

# When to Use Physostigmine

q. When to use physostigmine?



# When to Use Physostigmine

Ans. Physostigmine is used to address anticholinergic intoxication, such as overdoses of atropine or scopolamine.

# Signs of Imipramine Toxicity

Q. What are the signs of imipramine toxicity?

# Signs of Tricyclic Toxicity

Signs not limited to but likely to reach  
answer to multiple choice question:

Excitement

Restlessness

Dry mouth

Dilated pupils

Tachycardia

# Asthma

Q. Name some meds not to use with asthma

# Asthma

Ans.

Beta-blockers, e.g., propranolol

# Buspirone

Q. What is action of buspirone and for what is it FDA approved for?

# Buspirone

Ans.

Action: Serotonin 1A partial agonist

FDA approved for: anxiety

# Remeron

Q. What is the action of Remeron and for what is it FDA approved?



# Remeron

Ans.

Action: Alpha 2 antagonist

FDA approved for: MDD

# Alopecia

Q. Some meds that cause alopecia?

# Alopecia

Ans.

Li

Valproate

[Far from complete listing]

# Some Reasons to Avoid Barbiturates

Q. What are some reasons to avoid barbiturates?

# Some Reasons to Avoid Barbiturates

Ans.

- 1] Porphyria
- 2] On Sodium oxybate [GHB]
- 3] History of addictions

# GHB

Q. What is GHB?

# GHB

Ans. 4-hydroxybutanoic acid is a naturally occurring substance with names of sodium oxybate and trade name of Xyrem.

# GHB Used To Treat?

Q. For what is GHB used to treat?



# GHB is Used to Treat?

Ans.

1] Cataplexy

2] Narcolepsy's daytime sleepiness

# GHB's Concerns

Q. What are some concerns about GHB?

# GHB Concerns

Ans.

1] used as date rape drug.

2] overused to enhance athletic performance

# Uses of Clonazepam

Q. For what is clonazepam FDA approved?

# Uses of Clonazepam

Ans.

In additions to seizures, panic disorder

# Uses of Clonidine

Q. For what is clonidine FDA approved?

# Uses of Clonidine

Ans.

ADHD

# Pimozide

Q. For what is pimozide used?



# Pimozide

Ans.

Tourette

# Pimozide Concern

Q. A concern about pimozide?

# Pimozide Concern

Ans. QTc prologation

# Hyperprolactinemia

Q. What does hyperprolactinemia cause?

# Hyperprolactinemia

Ans.

1] Sexual dysfunction\*

2] Depression

3] Anxiety

\* Most likely the focus of multiple choice questions

# Effect of Nicotine

Q. Effect of nicotine?

# Effect of Nicotine

Ans.

Increases dopamine

Increases glutamate

# Untoward Birth Defect with Valproate

Q. What is the untoward birth defect associated with valproate?



# Untoward Birth Defect Associated with Valproate

Ans.

Neural tube defect.

# PTSD Nightmares

Q. Used to treat nightmares in PTSD

# PTSD Nightmares

Ans.

Prazosin [Minipress]

# Avoid with Warfarin

Q. What meds to avoid with warfarin?

# Avoid with Warfarin

Ans.

Carbamazepine

SSRIs impact too, but not as much as  
carbamazepine

# Associated with Torsade de Pointes

Q. What meds associated with torsade de pointes?

# Associated with Torsade de Pointes

Ans.

1] thioridazine

2] ziprasidone

# Anticholinergic Signs

Q. Lists anticholinergic signs.



# Anticholinergic Signs

Ans.

1. Dry mouth
2. Blurred vision
3. Constipation
4. Urinary retention
5. Hyperthymia
6. Decreased cognition
7. Tachycardia

# Benzodiazepine Action

Q. On what does benzodiazepine act?

# Benzodiazepine Action

Ans. Chloride channel of GABA A

# Risperidone Problems

Q. List some negatives as to using risperidone.

# Risperidone Problems

Ans.

EPS

Prolactin elevation

sexual problems

Weight gain in adolescence

# Clozapine

Q. FDA approves clozapine for?

# Clozapine

Ans.

- 1] "Resistant" schizophrenia
- 2] People with schizophrenia who are high suicide risk.

# SSRIs

Q. List the SSRIs.



# SSRIs

Ans.

Citalopram

Fluoxetine

Fluvoxamine

Paroxetine

Sertraline

[needs to be updated]

# Flumazenil

Q. FDA approves flumazenil for?

# Flumazenil

Ans. Reversal of sedative side effects of benzodiazepines, such as overdose, including such a need in children.

# Modafinil

Q. Modafinil is FDA approved for?

# Modafinil

Ans.

Reducing excessive sleepiness associated with:

- narcolepsy
- shift-work sleep disorder
- obstructive sleep apnea

# Acamprosate

Q. Acamprosate is thought to work on which receptor sites?

# Acamprosate

Ans. Stabilize glutamatergic function.

# Carbamazepine – lab tests

Q. What lab tests are needed when using carbamazepine?



# Carbamazepine – lab tests

Ans.

Blood count: every two weeks for 2 months,  
then every three months.

Liver, kidney and thyroid function: every 6 to  
12 months

More frequent for the elderly

Consider monitoring sodium

# Carbamazepine – life threatening

Q. What are the life-threatening conditions to worry about when using carbamazepine?

# Carbamazepine – life threatening

Ans.

1. Rare, aplastic anemia, agranulocytosis
2. Rare, Stevens-Johnson syndrome
3. Rare, SIADH = syndrome of inappropriate antidiuretic hormone secretion with hyponatremia

# Clozapine – tests/monitoring

Q. What tests are to be run with clozapine?

What do you want to monitor in addition to the lab test and physical findings

# Clozapine – tests - 1

Ans.

Complete blood count:

- before treatment
- every two weeks for six months
- then every four weeks
- then 4 weeks after treatment discontinued

See next screen

# Clozapine – tests - 2

Ans. Continued:

Track:

weight, q 3 months

BMI, q 3 months

waist circumference, q 3 months

fasting glucose, q 3 months

lipids, q 3 months

# Clozapine – monitoring - 3

Ans. Vigilant for diabetic ketoacidosis by monitoring:

rapid onset of polyuria

rapid onset of polydipsia

weight lost

nausea or vomiting

dehydration

increased R

weakness

clouding of sensorium, [including, of course, coma]

# Valproate – tests and monitoring

Q. What to test and monitor for when prescribing valproate?



# Valproate – tests and monitoring

Ans.

Lab tests before beginning treatment:

- platelet count

- coagulation test

- liver function tests

Also monitor

- weight

Follow above frequently, especially in first six months, then once or twice a year.

# Use of amitriptyline in elderly

Q. Discuss use of amitriptyline in the elderly.

# Amitriptyline in the elderly

Ans. Should be avoided because of significant anticholinergic effects.

# Bupropion's use in anorexia nervosa

Q. Discuss bupropion's use in anorexia nervosa.

# Bupropion's use in anorexia nervosa

Ans. Has FDA black box because of increased of seizures in pts with eating disorders.

# Wash Out - most

Q. How many weeks for washing out before using an MAOI, most meds?

# Wash Out - most

Ans. Two weeks.

# Wash Out - Fluoxetine

Q. How many weeks to wash out if pt is on fluoxetine?



# Wash Out - Fluoxetine

Ans. Five weeks

# Wash Out - Insufficient

Q. If wash out time is too short in switching from fluoxetine to an MAOI, what happens?

# Wash Out – Insufficient

Ans. Serotonin syndrome.

# NMS - signs

Q. Signs of Neuroleptic Malignant Syndrome?

# NMS - signs

Ans:

1] Hyperthermia

2] Rigidity

There are an assortment of lesser signs

# NMS – lab findings

Q. Prominent lab finding?

# NMS – lab findings

Ans.

Creatine kinase elevation is most commonly the one focused on.

# NMS - treatment

Q. Treatment?



# NMS - treatment

Ans.

- 1] DC medication.
- 2] Consider ICU for extreme findings.
- 3] Meds used:
  - bromocriptine
  - amantadine
  - dantrolene
- 4] ECT is an effective option

# Isotretinoin Side Effects

Q. List psychiatric side effects of isotretinoin [acutane], a med used for acne.

# Isotretinoin Side Effects

Ans.

Depression, psychosis, and suicidal thoughts

# Nortriptyline dosing

Q. What is dosing of nortriptyline?

# Nortriptyline dosing

Ans.

Initial 10-25 hs

Increase 25 mg/3-7 days

Usually: 75 – 150 mg/d

Max 300 mg/d

# Haloperidol and Antihypertensive Meds

Q. Pt is on antihypertensive meds. Giving haloperidol results in?

# Haloperidol and Antihypertensive Meds

Ans. May increase the effects of effects of antihypertensive meds except guanethidine which haloperidol may antagonize, thus lower effect.

# Triazolam Side Effects

Q. Side effects of triazolam [Halcyon].



# Triazolam Side Effects

Ans. Next day:

Ataxia

Amnesia

Daytime sedation

# Clonidine – Off label

Q. What are some psychiatric conditions clonidine is recommended even though off-label?

# Clonidine – Off Label

Ans.

ADHD

Tourette's

Substance withdrawal

PTSD

Social Anxiety Disorder

Clozapine-induced hypersalivation

# Flumazenil

Q. FDA approved uses of flumazenil?

# Flumazenil

Ans.

Reversal of sedative effects of  
benzodiazepines

# Memantine

Q. Memantine works on which amine system?

# Memantine

Ans. Glutamine

# Causes Pathological Gambling

Q. What medication has been associated with causing pathological gambling?



# Causes Pathological Gambling

Ans. First reports were of pramipexole.

# Warfarin and SSRIs

Q. SSRI given to pt on warfarin?

# Warfarin and SSRIs

Ans. May increase bleeding.

# Meds for GAD

Q. FDA approved for GAD?

# Meds for GAD

Ans.

Alprazolam

Duloxetine

Escitalopram

Paroxetine

Venlafaxine

# Seasonal Affective Disorder

Q. Med/s approved for SAD?

# Seasonal Affective Disorder

Ans.

Bupropion

# Acamprosate

Q. What does acamprosate do?



# Acamprosate

Ans.

Normalizes an aberrant glutamate system that may be the basis of protracted withdrawal and early craving.

# Delirium Caused by Anticholinergic Meds

Q. How to treat the delirium named above?

# Delirium Caused by Anticholinergic Meds

Ans.

Physostigmine IM

# Side Effects of Interferon

Q. Side effects of interferon?

# Side Effects of Interferon

Ans. Long list but one of following may reach the multiple choice of the question:

Depression

Flue-like

Alopecia

# FDA Approved for Migraine Headache

Q. Meds used in psychiatry that are FDA approved for migraine headache?

# FDA Approved for Migraine Headache and used in psychiatry

Ans.

Topiramate

Valproate

# Metabolizes Antidepressants

Q. Antidepressants are metabolized by?



# Metabolizes Antidepressants

Ans.

Liver's cytochrome P 450 enzyme system

# Li and Pregnancy

Q. Increase incidence of \_\_\_\_\_ with Li use in pregnancy

# Li and Pregnant

Ans. Ebstein's anomaly.

# Medication Causes Priapism

Q. Medication associated with priapism?

# Medication Causes Priapism

Ans.

Trazodone

# Blocking H1

Q. Blocking H1 results in?

# Blocking H1

Ans.

Sedation

Weight gain

# EPS

Q. In using typical antipsychotics, EPS is most likely to occur in?



# EPS

Ans.

Those who have Parkinson's disease

Adolescents

Senior citizens

# Metabolic Syndrome

Q. Signs of metabolic syndrome?

# Metabolic Syndrome

Ans.

Abdominal obesity

BP up

Glucose up

Cholesterol up

# Diabetes Lab Findings

Q. Name two lab findings defining diabetes.

# Diabetes Lab Findings

Ans.

Glucose >125

HGBA1c <6.5

# Modafinil

Q. Modafinil is FDA approved for?

# Modafinil

Ans.

Excessive sleepiness in narcolepsy

Obstructive sleep apnea

Shift-work sleep disorder

# Donepezil

Q. What class of meds is donepezil



# Donepezil

Ans.

Cholinesterase inhibitor.

# Clonidine Receptor Site

Q. What receptor site does clonidine influence?

# Clonidine Receptor Site

Ans. Alpha-2 agonist

# Antipsychotics

Q. High potency typical antipsychotics are less \_\_\_\_\_ than low potency.

# Antipsychotics

Ans.

Sedating/calming

# Hyperprolactinemia

Q. Which antipsychotics have hyperprolactinemia?

# Hyperprolactinemia

Ans. All typical and risperidone.

# Time Trial

Q. Time trial for SSRIs?



# Time Trial

Ans. 6 – 8 weeks

# Narcolepsy and Cataplexy

Q. One med for both?

# Narcolepsy and Catalepsy

Ans. Oxybate [Xyrem]

# Valproate and Pregnant

Q. Valproate is associate with what untoward result in pregnancy?

# Valproate and Pregnancy

Ans. Neural tube

# Nicotine and Clozapine

Q. Nicotine's impact on clozapine blood levels?

# Nicotine and Clozapine

Ans. Lowers level

# Nicotine and Li

Q. Nicotine's impact on Li blood levels?



# Nicotine and Li

Ans. Lowers blood level.

# Benzodiazepines and Pregnancy

Q. If mother took benzodiazepines during pregnancy, what will have a higher incidence in the baby?

# Benzodiazepines and Pregnancy

Ans. Floppy babies.

# FDA and OCD

Q. FDA approved for OCD

# FDA and OCD

Ans.

Clomipramine

Fluoxetine

Fluvoxamine

Paroxetine

Sertraline

# Inhibitor and Excitatory

Q. Chief inhibitor and chief excitatory substance in the brain?

# Inhibitory and Excitatory

Ans.

GABA is chief inhibitory.

Glutamate is chief excitatory

# Q. Acamprosate actions and uses



# Ans. Acamprosate actions and uses

1] reduces glutamate neurotransmission

2] Increases GABA neurotransmission

- - -

Alcohol dependence

Q. Alprazolam  
class, actions and uses

# Ans. Alprazolam

Benzodiazepine

Enhances the inhibitory effects of GABA

-

GAD

Panic disorder

**Q. Amitriptyline  
class, actions and uses**

# Ans. Amitriptyline

Boosts neurotransmitters serotonin and norepinephrine

-

Depression

# Q. Amoxapine

# Ans. Amoxapine

Class: Tricyclic

Actions: Norepinephrine & noradrenaline reuptake inhibitor

FDA:

Depression, including depression with anxiety

# Q. Amphetamine



# Ans. Amphetamine

Class: stimulant

Actions: increases norepinephrine by blocking reuptake

1] ADHD

2] Narcolepsy

# Q. Aripiprazole

# Ans. Aripiprazole

- 1] Schizophrenia
- 2] Mania
- 3] Bipolar maintenance
- 4] Depression [adjunct]
- 5] Autism-related irritability, ages 6 - 17

# Q. Armodafinil

# Ans. Armodafinil

Class: wake-promotin

Inhibitor of dopamine transporter

1] Narcolepsy

2] Shift-work sleep disorder

3] Reducing excessive sleepiness in pts with sleep apnea

# Q. Asenapine

# Ans. Asenapine

Atypical antipsychotic.

Blocks dopamine 2 receptors

1] schizophrenia

2] mania

# Q. Atomoxetine

Selective norepinephrine reuptake inhibitor  
ADHD in adults and children



# Q. Benztropin

# Ans. Benztropine

Antiparkinsonian

- 1] Extrapiramidal disorders
- 2] Parkinsonism

# Q. Buprenorphine

# Ans. Buprenorphine

Mu opioid receptor partial agonist

Prevents exogenous opioids from binding at opioid site, preventing pleasure

1] maintenance treatment of opioid dependence

# Q. Bupropion

# Ans. Bupropion

NDRI

- 1] Major depressive disorder
- 2] Seasonal affective disorder
- 3] Nicotine addiction

# Q. Buspirone

# Ans. Buspirone

Anxiolytic

1] Anxiety disorders



# Q. Caprylidene

Medical food

Induces hyperketonemia that provides alternative energy to the brain

1] Dietary management for Alzheimer's,  
[mild to moderate]

# Q. Carbamazepine

# Ans. Carbamazepine

Anticonvulsant

- 1] seizures
- 2] trigeminal neuralgia pain
- 3] mania

# Q. Chlordiazepoxide

# Ans. Chlordiazepoxide

Benzodiazepine

Enhances inhibitory effects of GABA

1] Anxiety

2] Preoperative anxiety

3] Withdrawal symptoms of acute alcoholism

# Q. Chlorpromazine

# Ans. Chlorpromazine

Conventional antipsychotic

Blocks dopamine 2 receptors

1] schizophrenia

2] nausea, vomiting

3] Acute porphyria

4] mania

5] Tetanus [adjunct]

6] intractable hiccups

7] adhd

# Q. Citalopram



# Ans. Citalopram

SSRI

Boost serotonin

1] Depression

# Q. Clomipramine

# Ans. Clomipramine

Tricyclic

Boost serotonin and norepinephrine

1] Obsessive-compulsive disorder

# Q. Clonazepine

# Ans. Clonazepam

Benzodiazepine

Enhances the inhibitory effects of GABA

1] Panic Disorder

2] some seizures

Q. Clonidine?

# Ans. Clonidine

Antihypertensive

1] ADHD

# Q. Clorazepate



# Ans. Clorazepate

Benzodiazepine

1] Anxiety

2] Alcohol withdrawal

# Q. Clozapine

# Ans. Clozapine

Atypical antipsychotic

Blocks dopamine 2 receptors

1] treatment-resistant schizophrenia

2] schizophrenia and suicidal

# Q. Desipramine

# Ans. Desipramine

Tricyclic

1] Depression

# Q. Desvenlafaxine

# Ans. Desvenlafaxine

SNRI

1] MDD

# Q. Diazepam



# Ans. Diazepam

Benzodiazepine

- 1] Anxiety
- 2] Alcohol withdrawal
- 3] Athetosis

# Q. Diphenhydramine

# Ans. Diphenhydramine

Antihistamine

1] Occasional sleeplessness

# Q. Disulfiram

# Ans. Disulfiram

Inhibits aldehyde dehydrogenase, the enzyme involved in the metabolism of alcohol.

1] Maintenance of alcohol abstinence

# Q. Donepezil

# Ans. Donepezil

Cholinesterase inhibitor

1] Alzheimer's mild, moderate and severe

# Q. Doxepin



# Ans. Doxepin

Tricyclic

1] Anxiety

2] Depression

3] Insomnia

4] Manic-depressive disorder

# Q. Duloxetine

# Ans. Duloxetine

SNRI

1] MDD

2] Diabetic peripheral neuropathic pain

3] GAD

4] Fibromyalgia

5] Chronic muscle pain

# Q. Escitalopram

# Ans. Escitalopram

SSRI

1] MDD

2] GAD

# Q. Estazolam

# Ans. Estazolam

Benzodiazepine

1] Insomnia

# Q. Flumazenil



# Flumazenil

Benzodiazepine receptor antagonist

1] Reversal of effects of benzodiazepine

# Q. Fluoxetine

# Ans. Fluoxetine

SSRI

1] MDD

2] OCD

3] PMS

4] Bulimia nervosa

5] Combined with olanzapine:

a] bipolar depression

# Q. Fluphenazine

# Ans. Fluphenazine

Conventional antipsychotic

1] Psychotic disorder

# Q. Flurazepam

# Ans. Flurazepam

Benzodiazepine

1] Insomnia

# Q. Fluvoxamine



# Ans. Fluvoxamine

SSRI

1] OCD

2] Social Anxiety

# Q. Gabapentin

# Ans. Gabapentin

Anticonvulsant

1] Restless leg syndrome

# Q. Galantamine

# Ans. Galantamine

Cholinesterase inhibitor

1] Alzheimer's, mild and moderate

# Q. Guanfacine

# Ans. Guanfacine

Alpha 2A agonist

1] ADHD

# Q. Haloperidol



# Ans. Haloperidol

Conventional antipsychotic

- 1] Psychotic Disorders
- 2] Tourette's
- 3] ADHD

# Q. Hydroxyzine

# Ans. Hydroxyzine

Antihistamine

- 1] Anxiety
- 2] Pruritus
- 3] Premedication sedation
- 4] Nausea and vomiting

# Q. Iloperidone

# Ans. Iloperidone

Atypical antipsychotic

1] Schizophrenia

# Q. Imipramine

# Ans. Imipramine

Tricyclic

1] Depression

2] Not FDA, but keep enuresis in mind

# Q. Isocarboxazid



# Ans. Isocarboxazid

MAO inhibitor

1] Depression

# Q. Lamotrigine

# Ans. Lamotrigine

Anticonvulsant

1] bipolar maintenance

2]

# Q. Levetiracetam

# Ans. Levetiracetam

Anticonvulsant

Only seizures, no psychiatric

# Q. Levomilnacipran

# Ans. Levomilnacipran

SNRI

1] MDD

# Q. Lisdexamfetamine



# Ans. Lisdexamfetamine

Stimulant

1}ADHD