Q1. L. J. is a 55-year-old male who attended a funeral and found himself laughing during the

service, but later that evening he was irritated with himself for what he had done. His wife

said this was abnormal behavior and took him to his doctor to be evaluated. After L. J.’s MRI

was reviewed, he was diagnosed with frontotemporal dementia. Which medication is

recommended to help L. J. with his emotional outbursts?

A. Memantine

B. Escitalopram

C. Donepezil

D. Risperidone

Q2. When can buprenorphine be initiated in a patient who is suffering from an opioid overdose?

A. As soon as the patient is stabilized

B. It should be administered as soon as you find the patient unconscious

C. after naloxone is administered to prevent the patient from going back into

opioid overdose

D. When the patient is experiencing mild-to-moderate symptoms of withdrawal

Q3. Of the following neurotransmitters, which one(s) are known to be severely disrupted in the

disease Dementia with Lewy Bodies?

I. Acetylcholine

II. Glutamate

III. Dopamine

IV. GABA

V. Norepinephrine

A. II only

B. III only

C. I and II

D. I and III

Q4. Choose the correct statement regarding medications used for alcoholism

A. Disulfiram: NMDA receptor antagonist & GABAA agonist

B. Naltrexone: µ-opioid receptor antagonist that reduces the reinforcement/euphoria

produced by alcohol

C. Acamprosate: enhances the effect of the inhibitory neurotransmitter gammaaminobutyric acid on the GABA receptors by binding to a site that is distinct from the GABA binding site in the central nervous system.

D. Lorazepam: inhibits alcohol dehydrogenase, leading to a buildup of acetaldehyde

Q5. Patient is a 75-year-old female with a confirmed diagnosis of Alzheimer’s Disease. She is

currently on Donepezil 10 mg daily. She is accompanied to your clinic today by her daughter,

who informs you that her mother has recently had an increase in depressive symptoms. She

has no history of mood disorders. She has a history of hypertension and tonic-clonic

seizures, but both are controlled. Assuming this patient will be thoroughly evaluated for the

diagnosis of depression, what would you recommend as initial therapy?

A. Amitriptyline

B. Doxepin

C. Fluoxetine

D. Bupropion

Q6. Which neurotransmitters are likely involved in the pathophysiology of withdrawal seizures?

I. Serotonin

II. Endorphins

III. Glutamate

IV. GABA

V. Dopamine

A. I and II

B. II and V

C. I and III

D. III and IV

Q7. Which medication below should be routine for all suspected cases of alcohol intoxication and

dependence?

A. B vitamin thiamine 100 mg

B. Haloperidol 5 mg

C. Lorazepam 2 mg

D. Acamprosate 666 mg

Q8. T. C. is an 88-year-old male who is diagnosed at your clinic with Dementia with Lewy Bodies.

He currently has some debilitating gait issues, which makes his quality of life very poor. His

memory is still intact with minor deficits. Which medication would likely benefit T. C. as his

initial therapy?

A. Levodopa/carbidopa

B. Galantamine

C. Memantine

D. Benztropine

Q9. In the pathophysiology of Alzheimer’s Disease, there are certain proteins that lead to the

plaques and tangles that result in this progressive, irreversible brain disorder. Choose the

appropriate protein with its corresponding pathology.

I. Tau – tangles

II. Beta-amyloid – tangles

III. Tau – plaques

IV. Beta-amyloid – plaques

A. I and II

B. II and III

C. II and IV

D. I and IV

Q10. T. K. is a 72-year-old female who has suffered many strokes in the past, likely due to

uncontrolled hypertension and hyperlipidemia. She has now been diagnosed with vascular

dementia due to memory loss and motor system slowing. What is the recommended

treatment for T. K.?

A. T. K. needs the drug donepezil to help with her memory loss only.

B. T. K. needs the drug donepezil to help with her memory loss, but also needs her

hypertension and hyperlipidemia controlled.

C. T. K. needs the drug donepezil to help with her memory loss, but also needs her

hypertension controlled.

D. T. K. needs her hypertension controlled only.

Q11. Which of the following alcohol screening tools lack sensitivity to detect hazardous/problem

drinking?

A. AUDIT

B. AUDITC

C. SASQ

D. CAGE

Q12. Which enzyme does disulfiram inhibit leading to a build-up of the ethanol metabolite

acetaldehyde?

A. Alcohol dehydrogenase

B. Microsomal ethanol oxidizing enzyme

C. Aldehyde dehydrogenase

D. Aldehyde reductase

 Question 13 of 51

Q13. Which of the following drugs in the treatment of Alzheimer’s Disease requires administration

with food?

A. Memantine

B. Donepezil

C. Rivastigmine

D. Galantamine

Q14. If a patient is being managed for chronic pain and is not getting better after months of

therapy with multiple agents (i.e., NSAIDs with opioids, muscle relaxants with NSAIDs, etc.),

what should be your next step in helping the patient?

I. Add a high-dose opioid if patient is not already on the maximum dose.

II. Assess for a co-morbid psychiatric condition.

III. Tell the patient you have exhausted all your options and there is nothing more you

can do.

IV. Refer the patient for a second opinion.

A. I and II

B. II and IV

C. III only

D. IV only

Q15. Choose the correct statement regarding an anti-ADHD medication and its respectful

mechanism of action

A. Methylphenidate – blocks reuptake of dopamine in the pre-synaptic neuron and

promotes release of dopamine from their storage sites in the pre-synaptic neuron

B. Amphetamines – blocks reuptake of norepinephrine and dopamine into presynaptic

neurons

C. Clonidine – blocks reuptake of dopamine in the pre-synaptic neuron and promotes

release of dopamine from their storage sites in the pre-synaptic neuron

D. Atomoxetine – acts by blocking the norepinephrine pump on the pre-synaptic

membrane

E. Guanfacine – blocks reuptake of norepinephrine and dopamine into presynaptic

neurons

Q16. Of the following neurotransmitters, which ones play a critical role in modulating attention in

ADHD?

I. Dopamine

II. Epinephrine

III. GABA

IV. Norepinephrine

V. Glutamate

A. II, III, and V

B. II and IV

C. I and IV

D. III only

Q17. Which medication below would you use in addition to benzodiazepine treatment if the

patient is experiencing psychosis during alcohol withdrawal delirium?

A. Naltrexone

B Haloperidol

C. Propofol

D. Chlordiazepoxide

Q18. What is the difference between Ritalin and Focalin?

A. Focalin is a D-isomer

B. Ritalin is the D-isomer

C. Focalin is the S-isomer

D. There is no difference other than the formulations

involved.

Q19. The patient is a 16-year-old girl with a past history of substance use disorder. She has been

known to abuse prescription opioids and smokes one pack of cigarettes every day. She has

been in and out of recovery for the past year. During her last admission into a recovery

center, she was diagnosed with ADHD, which may have contributed to her addictive

personality. She presents to your clinic today to initiate pharmacotherapy for her new

diagnosis. What would you recommend in this patient? Her current weight is 55 kg.

A. Ritalin 10 mg twice daily

B. Focalin 10 mg twice daily

C. Daytrana 30 mg patch worn for 12 hours daily

D. Atomoxetine 60 mg once daily

Q20. Select the correct description of a somatoform disorder.

A. Somatization disorder – manifests as a pain syndrome with a significant loss of or

alteration in physical function that mimics a physical disorder

B. Conversion disorder – pain that causes significant impairment in occupation or social

function, induces marked distress, or both

C. Hypochondriasis – persistent belief that one has a serious illness, despite extensive

medical evaluation

D. Pain disorder – intentional production or feigning of physical symptoms

Q21. FILL IN THE BLANK: \_\_\_\_\_\_\_\_\_\_\_ is the main neurotransmitter behind reward systems in the

brain, which usually leads to addiction when altered in any way.

A. Norepinephrine

B. Serotonin

C. Dopamine

D. Acetylcholine

Q22. Of the following medications, which one is contraindicated with stimulants such as Ritalin or

Adderall?

A. Atomoxetine

B. Clonidine

C. Amitriptyline

D. Phenelzine

Q23. A new patient presents to your clinic today. The patient is a 13-year-old boy who complains

that he has no interest in anything. The patient states, “I just want to sleep more than I

normally do, and I don’t care much for playing my video games anymore.” His mother states

he cannot focus on anything for more than a few minutes at a time, and that he often gets in

trouble at school because he cannot sit still. What would you recommend at this time?

A. Recommend doing a full evaluation to distinguish if this patient is presenting with

ADHD symptoms or depressive symptoms

B. Begin a stimulant at appropriate dose once patient’s weight is known

C. Refer to a behavioral counselor

D. Begin an SSRI at lowest initial dose and provide counseling on the increased risk of

suicide during the first few months of therapy

Q24. The experience of pain is ALWAYS subjective

A. True

B. False

Q25. E. B., a 55-year-old female, is a patient at your clinic today who has a past medical history

significant for breast cancer, hypertension, hepatic cirrhosis, type 2 diabetes, and a recent

diagnosis of alcohol use disorder. She has no known drug allergies. She states she is ready

to quit drinking but fears the cravings that it may bring. Which medication would you

recommend for E. B. to begin?

A. Naltrexone

B. Acamprosate

C. Any benzodiazepine

D. Thiamine

Q26. Which of the following drugs is structurally similar to tramadol; thus, its opioid-mediated

analgesia can be reversed by naloxone in mice?

A. Venlafaxine

B. Ketorolac

C. Duloxetine

D. Gabapentin

Q27. Which of the following psychiatric conditions is present in both domains (i.e., core

psychopathology & pain-related psychological symptoms) of chronic pain that will likely lead

to an outcome of disability, pain, and poor quality of life?

A. Major depression

B. Personality disorder

C. Anger

D. Anxiety

Q28. Disorientation, tremor, hyperactivity, fever, hallucinations, marked wakefulness, and

increased autonomic tone are all features that are consistent with which part of alcohol

withdrawal?

A. Alcohol withdrawal

seizures

B. Korsakoff’s Psychosis

C. Wernicke’s encephalopathy

D Alcohol withdrawal delirium

Q29. Which features are consistent with delirium?

I. Acute onset

II. Gradual onset

III. Course of disease fluctuates

IV. Course of diseases does not fluctuate

V. Impaired attention

VI. Normal attention

A. II, IV, and VI

B. I and III

C. II and IV

D. I, III, and V

Q30. Of the axons involved in the transmission of pain, which one is thinly myelinated and

conducts that first feeling of pain that is often felt as coming on as a sharp, rapid feeling?

A. ß-∆ fibers

B. A-∆ fibers

C. A-ß fibers

D. C fibers

Q31. Patient is a 10-year-old female with diagnosed ADHD who was started on Ritalin 5 mg twice

a day over 2 months ago. She is still experiencing the triad of symptoms associated with

ADHD (impaired attention, impulsivity, and excessive motor activity). Her mother reports

that she is now having difficulty in falling asleep since starting the medication. She has been

on no other anti-ADHD medications and the mother reports full compliance with medication

regimen. What is the appropriate recommendation to make based on this scenario?

A. Recommend psychotherapy in addition to current treatment

B. Switch to low dose Focalin

C. Add Clonidine

D. Switch to low-dose Adderall and titrate as appropriate in addition to psychotherapy

Q32. What baseline levels should you perform before initiating an anti-ADHD medication?

A. Electrolytes, height, weight, whiteblood cells

B. ECHO, heart rate, pulse

C. Height, weight, blood pressure, pulse

D. Blood pressure and pulse

Q33. This medication cannot be used for more than 5 days, it is a non-steroidal, anti-inflammatory

drug, and it is often substituted for morphine due to its rapid onset and high potency. What

is this medication?

A. Naproxen

B. Ketorolac

C. Sulindac

D. Etodolac

Q34. Which medication(s) requires a test dose to determine accurate use of the drug (i.e., how

addicted the patient truly is on a certain drug) before beginning a titration schedule to

withdrawal the patient?

I. Butalbital

II. Lorazepam

III. Hydrocodone

A. I only

B. II only

C. III only

D. I and II

Q35. Which of the following drugs is often used in the management of opioid addiction due to its

ceiling effect?

A. Buprenorphine

B. Naloxone

C. Clonidine

D. Methadone

Q36. Which club drug is structurally similar to GABA?

A. 3,4 – methylendedioxymethamphetamine

B. Ketamine

C. γ-hydroxybutyrate

D. Ecstasy

Q37. Select all the criteria for what is considered “At-Risk Drinking.”

I. Women: > 7 drinks in any given week

II. Men: > 4 drinks per day

III. Women: > 4 drinks per day

IV. Men: > 14 drinks per week

A. I, and II

B. I, II, and IV

C. I, II, and III

D. III and IV

Q38. Drug addiction includes many prescription medications and illegal substances. Of the drugs

listed, which ones can be withdrawn abruptly WITHOUT medical intervention to prevent

withdraw seizures?

A. Alcohol

B. Adderall

C. Lorazepam

D. Butalbital

Q39. Y. R. is a 35-year-old woman who presents to your clinic today complaining of ankle pain. She

said she was running the trail when she saw a snake. During a quick turn to run away from

the snake, she twisted her ankle. Which of the following medications may be a good choice

in helping Y. R. with her pain?

A. Oxycodone

B. Amitriptyline

C. Ibuprofen

D. Duloxetine

Q40. What should our treatment goal be with our patients when it comes to managing chronic

pain?

A. The goal is to make the pain go completely away.

B. The goal is to make the patient feel numb so that the pain cannot be thought about.

C. There are no specific treatment goals that we should discuss with our patients, just so

they don’t get their expectations too high.

D. The goal is to improve their function and to drop their pain scale to less than 5 out of 10.

Q41. There are many different types of dementia. Which dementia is NOT a direct result of

disrupted neurotransmitters, but a result of degeneration of different regions in the brain?

Onset of the disease is typically before the age of 60, and very rare after the age of 75.

A. Alzheimer’s Disease

B. Dementia with Lewy Bodies

C. Creutzfeldt-Jakob Disease

D. Frontotemporal Dementias

Q42. A 59-year-old male has been admitted to the E. D. due to a methamphetamine overdose.

The patient’s friend reported he ingested up to 2 grams because “he thought cops were

coming to get him.” The patient’s vitals are all within normal limits, except his blood

pressure is 180/110. What is the best recommendation to make at this time?

A. Administer a beta-blocker like labetalol to help bring his blood pressure down

B. Patient’s blood pressure is considered a hypertension urgency, but it is probably due

to the drug overdose. No action is needed at this time until the drug has cleared his

system.

C. Blood pressure is not a concern right now, but supportive therapy should be provided

in the incidence of respiratory depression.

D. Administer an alpha-blocker like phentolamine to help bring his blood pressure down.

Q43. Benzodiazepines can be withdrawn abruptly despite duration of therapy/abuse.

A. True

B. False

Q44. Select the correct treatment regarding drugs involved in addiction management and their

corresponding mechanism of action.

A. Benzodiazepines – GABA antagonist

B. Buprenorphine – opioid antagonist

C. Naltrexone – partial opiate agonist

D. Flumazenil – GABA antagonist

Q45. Daytrana is the MPH transdermal system of methylphenidate approved for the treatment of

ADHD in children aged 6 years and older. What is the difference in terms of the metabolism

compared to the other formulations in this class?

A. It is mainly metabolized by the enzyme carboxylesterase once absorbed.

B. It does not undergo first-pass metabolism by the enzyme carboxylesterase in the

liver.

C. It can be cut up and sprinkled onto food so it can bypass first-pass metabolism in the

liver.

D. It uses an osmotic releasing oral system technology to slowly deliver the drug to the

enzyme carboxylesterase in order to make the drug last longer.

Q46. T. B. is a 55-year-old male who has diagnosed with type 2 diabetes 10+ years ago. He has

since had complications from the disease and is suffering from severe neuropathy. On top of

that, T. B. is struggling with his mental health and was recently told he could be depressed

but he had refused treatment at that time. Besides getting his blood sugar under control,

what medication(s) can we use that may be useful in helping T. B.?

I. Nortriptyline

II. Venlafaxine

III. Duloxetine

IV. Fluoxetine

A. I, II, and III

B. I and II

C. II and III

D. IV only

Q47. Disulfiram has been proven effective in the treatment of alcoholism, but recently it has been

trialed in the management of cocaine addiction. What is the mechanism of action that likely

helps produce these aversive effects?

A. Inhibition on dopamine betahydroxylase

B. Inhibition on aldehyde dehydrogenase

C. Inhibition on alcohol dehydrogenase

D. Inhibition on aldehyde reductase

Q48. SSRIs can be used in alcohol use disorder and offer modest drinking reduction through an

anti-craving effect.

A. True

B. False

Q49. Which of the following drugs in the treatment of Alzheimer’s Disease helps normalize

glutamate by antagonizing the NMDA receptor?

A. Memantine

B. Donepezil

C. Rivastigmine

D. Galantamine