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**ROSSI'S  
UPDATED  
EXAM TIPS  
DECEMBER '25**



Clarity Education Systems

**Dr. Rossi's Updated Exam Tips**

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## PMHNP Certification Exam Tips December 2025

Clarity Education Systems

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Ongoing Edition

As psychiatric-mental health nurse practitioners (PMHNPs) preparing for certification exams, staying abreast of evolving evidence in psychopharmacology and neuroimmunology is essential for safe, evidence-based practice. This month's update focuses on high-yield concepts recently seen on both the ANCC and AANP exams as reported by students. These topics emphasize risk mitigation, patient safety, and differential management strategies, drawing from the latest clinical guidelines and research to ensure alignment with current standards. Review these sections to reinforce your knowledge, with practice questions designed to challenge application in complex clinical scenarios.

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## **Section One.**

### **Antipsychotic Medications: Key Adverse Effects and Monitoring**

- Antipsychotic agents remain first-line for schizophrenia spectrum disorders, bipolar mania, and augmentation in major depressive disorder, but their long-term use requires vigilant monitoring for metabolic, neurological, and hematologic risks. Recent evidence underscores personalized risk assessment, including genetic testing for HLA-B\*1502 in certain populations to predict severe cutaneous reactions, and routine metabolic screening per American Psychiatric Association guidelines.

### **Risperidone and Extrapyrimal Symptoms (EPS)**

- Risperidone, a second-generation antipsychotic, binds preferentially to D2 receptors in the mesolimbic pathway, providing efficacy in positive psychotic symptoms, but its relatively high D2 affinity increases the risk of EPS compared to other atypicals. EPS manifestations include acute dystonia (e.g., oculogyric crisis, torticollis), akathisia (restlessness), parkinsonism (bradykinesia, rigidity), and tardive dyskinesia (TD) with chronic use. High-yield facts: Risk is dose-dependent (>6 mg/day elevates incidence); elderly patients and those with Lewy body dementia are particularly vulnerable. Safety considerations: Initiate at low doses (1-2 mg/day) with slow titration; prophylactically administer anticholinergics like benztropine for acute symptoms. Monitor using the Abnormal Involuntary Movement Scale (AIMS) every 3-6 months for TD. For PMHNPs, integrate EPS screening into shared decision-making, as untreated symptoms can exacerbate nonadherence and functional decline in outpatient settings.

### **Clozapine and Agranulocytosis**

- Clozapine, reserved for treatment-resistant schizophrenia, offers superior efficacy in reducing suicidality and hospitalizations but mandates strict hematologic monitoring due to agranulocytosis risk (absolute neutrophil count [ANC] <500/ $\mu$ L), occurring in 0.5-1% of patients within the first 18 weeks. Current evidence supports weekly ANC checks for the initial 6 months, biweekly through month 12, and monthly thereafter if stable. Safety

issues: Febrile neutropenia may precede agranulocytosis; immediate discontinuation is required if ANC <1000/ $\mu$ L or WBC <2000/ $\mu$ L, with rechallenge contraindicated. High-yield: Clozapine-NOxide (a metabolite) contributes to efficacy in rapid metabolizers. PMHNPs must educate patients on infection signs (fever, sore throat) and coordinate with labs for REMS compliance, balancing benefits against mortality risk from clozapine withdrawal in refractory cases.

### **Quetiapine and Cataracts**

- Quetiapine, utilized for bipolar depression, generalized anxiety, and insomnia augmentation, has a favorable EPS profile but carries an underrecognized risk of lens opacities and cataracts, linked to its noradrenergic antagonism and potential oxidative stress on ocular tissues. Evidence from longitudinal studies indicates a 2-3-fold increased incidence with prolonged use (>1 year), particularly at higher doses (>300 mg/day). Safety protocols: Baseline and annual slit-lamp ophthalmologic exams are recommended, especially in patients over 50 or with diabetes. High-yield: Unlike metabolic effects, this risk persists post-discontinuation. For mental health providers, incorporate ocular history into initial assessments and consider alternatives like aripiprazole in at-risk populations to prevent irreversible vision loss impacting quality of life.

### **Olanzapine and Obesity/Weight Gain**

- Olanzapine excels in acute mania and schizophrenia maintenance but is associated with substantial weight gain (average 4-10 kg in the first year) and metabolic syndrome via H1 and 5-HT<sub>2C</sub> receptor antagonism, promoting hyperphagia and insulin resistance. Recent meta-analyses confirm a 20-30% risk of clinically significant gain (>7% body weight), elevating cardiovascular disease odds. Safety measures: Weekly weight/BMI monitoring for 3 months, then monthly; screen lipids and HbA<sub>1c</sub> at baseline, 3 months, and annually. High-yield: Long-acting injectable forms may mitigate nonadherence but not metabolic risks. PMHNPs should prioritize lifestyle interventions (e.g., metformin co-prescription per ADA guidelines) and switch to lower-risk agents like ziprasidone if gain exceeds 5% early, addressing stigma around weight in holistic psychiatric care.

### **Mood Stabilizers: Dermatologic and Systemic Risks**

Mood stabilizers are cornerstone therapies for bipolar disorder, with evidence emphasizing cross-titration to minimize relapse during switches. Focus on rash monitoring and metabolic neutrality informs safer polypharmacy in comorbid anxiety or substance use disorders.

### **Carbamazepine and Stevens-Johnson Syndrome (SJS)**

- Carbamazepine, an anticonvulsant mood stabilizer effective for bipolar mixed states and alcohol withdrawal, inhibits voltage-gated sodium channels but poses a rare yet severe risk of SJS/toxic epidermal necrolysis (TEN), a mucocutaneous hypersensitivity reaction

with 5-10% mortality. Incidence is 1-6 per 10,000 exposures, highest in first 8 weeks and HLA-B\*1502 carriers (e.g., Asian ancestry). Safety: Pre-treatment HLA genotyping per FDA black box; immediate discontinuation at rash onset, with supportive care in burn units for SJS/TEN. High-yield: Cross-reactivity with other aromatic anticonvulsants. PMHNPs must assess ethnicity and family history, favoring valproate alternatives in high-risk groups to prevent life-threatening desquamation.

### **Lamotrigine (Lamictal) and SJS Rash**

- Lamotrigine, a phenyltriazine mood stabilizer first-line for bipolar depression maintenance, inhibits glutamate release and voltage-sensitive sodium channels, offering broad efficacy with minimal cognitive blunting. However, it carries a 0.1-0.3% risk of serious rashes, including SJS/TEN and hypersensitivity syndrome, predominantly in pediatric or rapid-titration scenarios. Current guidelines recommend slow induction (25 mg/day for 2 weeks, titrating to 200 mg over 6-8 weeks) to mitigate risk. Safety: Discontinue at any rash, fever, or lymphadenopathy; risk triples with valproate co-administration due to glucuronidation inhibition. High-yield: Benign rashes occur in 5-10% but require differentiation. For PMHNPs, this agent's tolerability supports long-term adherence in women of childbearing age, balancing against Stevens-Johnson with prompt dermatology referral.

- **Lamotrigine: Least Weight Gain Among Mood Stabilizers**

- Among mood stabilizers, lamotrigine uniquely demonstrates weight neutrality or slight loss (0-2 kg average), contrasting valproate's gain profile, making it ideal for obesity-prone bipolar patients. Evidence from 5-year trials shows sustained metabolic stability, attributed to absent H1 antagonism. High-yield: Preferred in binge-eating comorbidity per APA guidelines. Safety: No routine labs beyond rash vigilance. PMHNPs can leverage this for patient-centered prescribing, enhancing self-efficacy in weight management within recovery-oriented care.

### **Haloperidol (Haldol) and Orthostatic Hypotension**

- Haloperidol, a high-potency first-generation antipsychotic used for acute agitation and delirium, blocks alpha-1 adrenergic receptors, precipitating orthostatic hypotension (systolic drop >20 mmHg) in up to 20% of cases, especially IV administration or elderly patients. Safety: Dose at 0.5-5 mg IM/PO; monitor BP supine-to-standing, with fluids and support hose as prophylactics. High-yield: QT prolongation risk compounds arrhythmia potential. In psychiatric emergencies, PMHNPs prioritize de-escalation alongside haloperidol, transitioning to atypicals to avert falls and syncope in inpatient settings.

## Valproate (Depakote) and Hyperammonemia

- Valproate, a branched-chain fatty acid stabilizing mood via GABA enhancement and sodium channel blockade, is effective for bipolar mania but induces hyperammonemia ( $\text{NH}_3 > 50 \mu\text{mol/L}$ ) in 10-20% of users, even without hepatic enzyme elevation, via carnitine depletion and urea cycle disruption. Symptoms include encephalopathy, lethargy, or tremor, mimicking relapse. Safety: Baseline and periodic ammonia levels, especially with topiramate co-use or renal impairment; supplement L-carnitine if  $\text{NH}_3 > 100 \mu\text{mol/L}$ . High-yield: Teratogenic (neural tube defects); monitor platelets/liver function quarterly. PMHNPs integrate ammonia screening into routine labs, favoring lamotrigine switches in vulnerable populations to prevent neurotoxicity.

## Immune System Dysregulation: Cytokines in Psychiatric Disorders

- Cytokines, soluble mediators of inflammation from immune cells (e.g., IL-6, TNF- $\alpha$ , IFN- $\gamma$ ), play a pivotal role in the gut-brain axis and stress response, with elevated levels implicated in major depressive disorder (MDD), schizophrenia, and bipolar disorder via microglial activation and neuroplasticity disruption. Current evidence from meta-analyses links pro-inflammatory profiles (high IL-1 $\beta$ , IL-6) to treatment resistance, supporting anti-cytokine strategies like minocycline augmentation. High-yield: Normalization post-antidepressant response predicts remission. Safety: Avoid immunomodulators in active infection; monitor CRP as a proxy. For PMHNPs, cytokine-informed care enhances precision psychiatry, integrating lifestyle anti-inflammatories (e.g., omega-3s) to target residual symptoms in trauma-related disorders.



**Q1.** A 28-year-old male with schizophrenia presents with acute agitation and is initiated on risperidone 2 mg PO BID. On day 3, he develops involuntary upward eye deviation and neck stiffness. Vital signs are stable, and no fever is noted. What is the most appropriate immediate intervention?

- A. Discontinue risperidone and start clozapine.
- B. Administer IV diphenhydramine 50 mg and benztropine 2 mg IM.
- C. Order serum electrolytes and CT head to rule out stroke.
- D. Increase risperidone to 4 mg BID for better symptom control.

**Q2.** A 35-year-old female with treatment-resistant schizophrenia is started on clozapine after failing three antipsychotics. Her baseline ANC is 2500/ $\mu$ L. On week 4, she reports a sore throat and fever (38.5°C). Labs show ANC 800/ $\mu$ L and WBC 3000/ $\mu$ L. What is the next step?

- A. Continue clozapine with twice-weekly ANC monitoring.
- B. Discontinue clozapine immediately and notify the REMS program.
- C. Switch to olanzapine and recheck ANC in 1 week.
- D. Administer granulocyte colony-stimulating factor (G-CSF) and observe.

**Q3.** A 52-year-old male with bipolar II disorder has been stable on quetiapine 300 mg HS for 18 months. He reports blurred vision in low light. BMI is 28, and HbA1c is 5.8%. What preventive measure should the PMHNP implement?

- A. Order fasting lipids and switch to haloperidol.
- B. Refer for slit-lamp ophthalmologic exam and consider dose reduction.
- C. Add metformin 500 mg BID for metabolic protection.
- D. Increase to 400 mg HS for enhanced mood stabilization.

**Q4.** A 42-year-old female with schizoaffective disorder gains 8 kg in 2 months on olanzapine 20 mg/day. Labs show triglycerides 250 mg/dL and fasting glucose 110 mg/dL. She expresses concern about her weight impacting relationships. What is the evidence-based next step?

- A. Continue olanzapine and recommend diet counseling only.
- B. Add topiramate 100 mg BID for weight mitigation.
- C. Taper to ziprasidone 80 mg BID with metabolic recheck in 4 weeks.
- D. Order thyroid function tests to rule out unrelated causes.

**Q5.** A 30-year-old Asian American male with bipolar I disorder is prescribed carbamazepine 200 mg BID for acute mania. Family history includes drug rash. What is the highest-priority action prior to initiation?

- A. Perform HLA-B\*1502 genetic testing.
- B. Obtain baseline LFTs and platelets.
- C. Start at 400 mg BID for faster efficacy.
- D. Co-prescribe valproate for synergy.

**Q6.** A 25-year-old female with bipolar depression is titrated to lamotrigine 100 mg/day (week 5 schedule). She develops a maculopapular rash on her trunk without mucosal involvement or fever. Vital signs are normal. What should the PMHNP do?

- A. Increase to 150 mg/day and monitor weekly.
- B. Switch to carbamazepine 200 mg BID.
- C. Add diphenhydramine 25 mg QHS for pruritus.

D. Discontinue lamotrigine and refer to dermatology.

**Q7.** A 38-year-old male with bipolar II and obesity (BMI 32) is stable on lithium but gains 5 kg in 3 months. He requests a switch for metabolic reasons. Which agent is most appropriate based on weight neutrality?

- A. Valproate 500 mg BID.
- B. Olanzapine 10 mg HS.
- C. Lamotrigine 100 mg BID.
- D. Carbamazepine 400 mg/day.

**Q8.** An 72-year-old male with delirium in the ICU receives haloperidol 2 mg IV q4h. Post-dose, his BP drops from 140/80 to 100/60 mmHg upon sitting. He denies dizziness. What is the best management?

- A. Continue dosing and recheck BP in 24 hours.
- B. Hold next dose, hydrate, and apply compression stockings.
- C. Switch to quetiapine 50 mg PO qHS.
- D. Administer fludrocortisone 0.1 mg daily.

**Q9.** A 29-year-old female on valproate 1000 mg/day for bipolar mania presents with fatigue and confusion. LFTs are normal, but ammonia is 85  $\mu\text{mol/L}$ . EEG shows slowing. What intervention is indicated?

- A. Increase valproate to 1500 mg/day.
- B. Discontinue valproate and supplement L-carnitine 1 g BID.
- C. Order valproate level only.
- D. Add levetiracetam for encephalopathy.

**Q10.** A 45-year-old male with treatment-resistant MDD has elevated serum IL-6 (25 pg/mL) on routine inflammatory panel. He responds partially to escitalopram. What augmentation strategy aligns with cytokine-targeted evidence?

- A. Augment with minocycline 100 mg BID.
- B. Add bupropion XL 300 mg daily.
- C. Increase escitalopram to 30 mg daily.
- D. Switch to ECT monotherapy.

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## Section Two.

### Neurobiology of Depression: Neurotransmitters and Critical Brain Regions

Understanding the neurobiological underpinnings of depression is essential for PMHNPs, as certification exams frequently test integration of pathophysiology with evidence-based treatment selection. Current models emphasize dysfunction in monoamine systems, prefrontal-limbic circuitry, and neuroplasticity. The following high-yield points reflect consensus guidelines and recent functional imaging/neurochemical studies (2023–2025).

### **Serotonin and Norepinephrine: Primary Neurotransmitters Implicated in Depression**

- Depression is characterized by functional deficits in both serotonergic (5-HT) and noradrenergic (NE) neurotransmission.
- Key evidence: – Reduced CSF 5-HIAA and MHPG in severe depression and completed suicide. – All effective antidepressants (SSRIs, SNRIs, TCAs, mirtazapine, vortioxetine, vilazodone, NDRI, ketamine) ultimately enhance synaptic availability or post-synaptic signaling of 5-HT, NE, or both. – Dual 5-HT/NE reuptake inhibition (e.g., venlafaxine  $\geq 225$  mg, duloxetine  $\geq 60$  mg, TCAs) demonstrates superior efficacy in severe, melancholic, and treatment-resistant depression (multiple meta-analyses).
- Safety & clinical pearls: – Serotonin syndrome risk increases with poly-serotonergic therapy (SSRI/SNRI + triptans, tramadol, fentanyl, linezolid, MAOIs). – NE reuptake inhibition accounts for early activating side effects (anxiety, insomnia, diastolic hypertension) but drives response in psychomotor-retarded subtypes.

### **Dorsolateral Prefrontal Cortex (DLPFC) – Executive Functioning**

- Primary roles: working memory, cognitive flexibility, planning, attention regulation, and top-down emotional control.
- Pathophysiology: left DLPFC hypoactivation and volume loss in MDD → impaired concentration, indecisiveness, rumination, and psychomotor slowing.
- High-yield treatment correlations: – High-frequency (10 Hz) left DLPFC rTMS is FDA-cleared and achieves 50–60% response/30–40% remission in treatment-resistant depression. – CBT and cognitive remediation increase DLPFC activation on post-treatment fMRI. – Persistent executive dysfunction despite mood improvement is a strong predictor of relapse and occupational disability.

### **Amygdala – Fear Conditioning and Emotional Processing**

- Hyperactivation and increased volume in unmedicated MDD, PTSD, and all anxiety disorders.
- Core functions: rapid threat detection, fear memory consolidation, and autonomic arousal.

- Pathophysiology: exaggerated response to negative stimuli + failed prefrontal inhibition → sustained negative affect, hypervigilance, and anhedonia.
  - High-yield treatment evidence: – SSRIs and SNRIs reliably normalize amygdala hyperactivity within 6–8 weeks (strongest imaging predictor of clinical response). – Prolonged exposure therapy, EMDR, and psilocybin-assisted therapy produce rapid amygdala downregulation. – Benzodiazepines acutely suppress amygdala but do not remodel circuitry and carry dependence risk.
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**Q11.** A 34-year-old female with recurrent major depression and prominent psychomotor retardation has failed two adequate SSRI trials. Which pharmacologic strategy is most strongly supported by the monoamine hypothesis and current evidence?

- A. Switch to venlafaxine-XR titrated to at least 225 mg/day.
- B. Augment with buspirone 30 mg BID.
- C. Add low-dose aripiprazole 2 mg/day.
- D. Discontinue antidepressant and initiate ketamine infusion.

**Q12.** A 52-year-old male with treatment-resistant depression shows persistent deficits in working memory and decision-making despite euthymia on sertraline + bupropion. MRI reveals left DLPFC volume loss. Which non-pharmacologic intervention has the strongest evidence for targeting this region?

- A. Electroconvulsive therapy (ECT) with right unilateral placement.
- B. High-frequency (10 Hz) rTMS over left DLPFC.
- C. Vagus nerve stimulation (VNS).
- D. Bright-light therapy 10,000 lux.

**Q13.** A 29-year-old veteran with PTSD and comorbid MDD presents with hypervigilance, nightmares, and exaggerated startle. fMRI shows marked amygdala hyperactivation to combat-related stimuli. Which medication class most reliably normalizes amygdala hyperactivity within 6–12 weeks?

- A. Prazosin 1–15 mg HS.
- B. Lamotrigine titrated to 200 mg/day.
- C. Second-generation antipsychotics.
- D. Selective serotonin reuptake inhibitors (SSRIs).

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## Section Three.

### Additional High-Yield Psychopharmacology Topics

#### Valproate (Depakote/Divalproex) – Teratogenicity, Toxicity, and Hyperammonemia

- Major teratogen: Highest risk of neural tube defects (spina bifida 5–10% with first-trimester exposure; 10- to 20-fold higher than general population).
- Current evidence-based safety mandates: – FDA Category X for pregnancy; effective contraception required in all women of childbearing potential. – Folate 4 mg daily pre-conceptually and throughout pregnancy if inadvertent exposure occurs (reduces risk by ~50–70%). – Avoid in planned pregnancy; preferred alternatives = lamotrigine or lithium with monitoring.
- Toxicity: Therapeutic range 50–125 mcg/mL for psychiatric indications; levels >150 mcg/mL associated with severe toxicity (encephalopathy, cerebral edema, coma, thrombocytopenia, pancreatitis).
- Hyperammonemia: Occurs in 15–50% of patients independent of liver dysfunction; symptoms (lethargy, confusion, ataxia) can mimic bipolar relapse. – High-yield monitoring: Check ammonia if altered mental status, even with normal LFTs; supplement L-carnitine 990–3000 mg/day if ammonia >80–100 µmol/L or symptomatic.
- PMHNP pearl: Valproate remains first-line for acute mania when rapid loading is needed, but long-term use in women of reproductive age should be minimized.

#### Kava Kava (*Piper methysticum*) – Herbal Treatment for Anxiety

- Mechanism: Kavapyrones enhance GABA-A receptor binding and inhibit norepinephrine/serotonin reuptake.
- Efficacy: Moderate evidence supports short-term use for mild-moderate generalized anxiety disorder (comparable to low-dose benzodiazepines in meta-analyses).
- Major safety concerns: – Severe hepatotoxicity (acute liver failure, need for transplant, deaths reported), leading to bans/restrictions in Europe, Canada, and FDA warnings in the U.S. – Risk increased with acetone/ethanol extracts, high doses (>250 mg kavalactones/day), and prolonged use (>3 months). – Drug interactions: Potentiates benzodiazepines, alcohol, and other hepatotoxins.
- Current consensus: Not recommended in routine psychiatric practice; safer evidence-based alternatives (SSRIs, buspirone, hydroxyzine, pregabalin) are preferred.

- PMHNP exam pearl: Kava is the classic example of an herbal supplement with proven efficacy but unacceptable risk–benefit ratio.

### **Clozapine (Clozaril) – Unique Reduction in Suicide Risk in Schizophrenia**

- Only antipsychotic with Level 1 evidence for reducing completed suicide and suicidal behavior in schizophrenia (INTERSEPT and meta-analyses: ~50–80% relative risk reduction).
- Mechanism of anti-suicidality: Likely multifactorial (superior efficacy against positive symptoms, mood stabilization, reduced aggression, possible direct effects on impulsivity circuits).
- High-yield facts: – FDA indication specifically includes “reduction of risk of recurrent suicidal behavior in schizophrenia or schizoaffective disorder.” – Benefit independent of agranulocytosis monitoring—suicide protection persists lifelong with continued use.
- Clinical pearl for PMHNPs: In patients with schizophrenia and persistent suicidal ideation despite adequate trials of other antipsychotics, clozapine is the treatment of choice, even if not treatment-resistant for psychosis.



**Q14.** A 26-year-old female with bipolar I disorder, currently stable on valproate 1500 mg/day (level 98 mcg/mL), informs you she is 6 weeks pregnant. She has no contraception in place. What is the most appropriate immediate management?

- Continue valproate and add high-dose folate 4 mg daily.
- Abruptly discontinue valproate and bridge with haloperidol.
- Taper valproate over 2–4 weeks while starting lamotrigine and folate 4 mg daily.
- Reduce valproate to 500 mg/day and monitor levels weekly.

**Q15.** A 42-year-old male with GAD requests a “natural” alternative to buspirone. He brings in a bottle of kava kava extract standardized to 30% kavalactones. What is the most appropriate PMHNP response?

- Approve short-term use at 100–250 mg kavalactones daily with LFT monitoring
- Advise against use due to risk of fulminant hepatic failure and recommend evidence-based alternatives
- Suggest combining kava with low-dose alprazolam for synergy
- Recommend switching to St. John’s wort instead

**Q16.** A 31-year-old male with schizophrenia has made three serious suicide attempts in the past year despite trials of risperidone, olanzapine, and aripiprazole long-acting injectable. He denies active command hallucinations but endorses chronic hopelessness. Which medication has the strongest evidence for reducing completed suicide in this patient?

- A. Long-acting injectable paliperidone palmitate
- B. Clozapine with mandatory ANC monitoring
- C. Quetiapine titrated to 800 mg/day
- D. Lurasidone 120 mg/day with lithium augmentation

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## Section Four.

### Comparative Tolerability Profiles: Sedation and Weight Gain

Minimizing sedation and metabolic burden is critical for long-term adherence, occupational functioning, and cardiovascular risk reduction in psychiatric patients. Exam questions frequently test relative side-effect rankings across classes.

#### Least Sedating Mood Stabilizer – Lamotrigine (Lamictal)

- Lamotrigine is consistently ranked as the least sedating (and often activating) agent among mood stabilizers.
- Evidence: Head-to-head trials and network meta-analyses show lamotrigine has near-zero sedation risk of cognitive dulling or daytime somnolence compared to valproate, lithium, carbamazepine, and most antipsychotics.
- Clinical advantages: – Preferred in bipolar depression, rapid-cycling, and patients with comorbid ADHD or traumatic brain injury. – Improves alertness and cognitive processing speed in some studies.
- PMHNP pearl: Ideal when patients report “zombie-like” effects from other agents or need to maintain high-level executive functioning (e.g., students, professionals, pilots).

#### Least Sedating SSRIs – Escitalopram (Lexapro) and Fluoxetine (Prozac)

- Escitalopram and fluoxetine are the least sedating/highest activating SSRIs.
- Ranking from most → least sedating: paroxetine > fluvoxamine > sertraline > citalopram > escitalopram ≈ fluoxetine.
- High-yield distinctions: – Fluoxetine: Long half-life, mild noradrenergic reuptake inhibition → activating, insomnia common early in treatment. – Escitalopram: Cleanest receptor profile (highest S-enantiomer selectivity) → minimal histamine/dopamine blockade → lowest sedation and sexual dysfunction rates among SSRIs.

- Clinical use: First-choice SSRIs in depression with hypersomnia, apathy, or fatigue-predominant presentations.

**Least Weight-Gain Liability Antipsychotic – Ziprasidone (Geodon), Aripiprazole (Abilify), Lurasidone (Latuda)**

- Acronym tested on exams: **ZAL** (Ziprasidone – Aripiprazole – Lurasidone).
- Evidence-based ranking from least → most weight gain (CATIE, EUFEST, CAFÉ, 2023–2025 meta-analyses):
  1. Ziprasidone (+0.5 to –1 kg at 1 year)
  2. Aripiprazole (+0.5 to +2 kg)
  3. Lurasidone (+0.5 to +2 kg)
  4. Brexpiprazole (+2–4 kg)
  5. Asenapine, risperidone, quetiapine, olanzapine, clozapine (highest).
- Mechanisms of ZAL metabolic neutrality: – Low H1 and 5-HT<sub>2C</sub> receptor affinity – Ziprasidone: additional 5-HT<sub>1A</sub> agonism and moderate 5-HT/NE reuptake inhibition – Aripiprazole & brexpiprazole: D<sub>2</sub> partial agonism – Lurasidone: high 5-HT<sub>7</sub> antagonism (pro-cognitive bonus)
- PMHNP pearl: Require food ≥500 calories for ziprasidone and lurasidone absorption; monitor QTc with ziprasidone.



**Q17.** A 24-year-old medical student with bipolar II depression reports excessive daytime sleepiness on lithium 900 mg/day. Which mood stabilizer switch is most likely to improve alertness and cognitive performance?

- A. Lamotrigine titrated to 200 mg/day.
- B. Carbamazepine 600 mg/day.
- C. Valproate 1000 mg/day.
- D. Olanzapine 10 mg/day added to lithium.

**Q18.** A 38-year-old airline pilot with new-onset major depression needs an antidepressant with minimal sedation risk due to FAA regulations. Which agent is most appropriate?

- A. Paroxetine 20 mg/day.
- B. Sertraline 100 mg/day.

- C. Mirtazapine 15 mg HS.
- D. Fluoxetine 20 mg/day.

**Q19.** A 29-year-old female with schizophrenia and BMI 31 refuses clozapine due to monitoring requirements but gained 12 kg on olanzapine. Which antipsychotic has the strongest evidence for long-term weight neutrality?

- A. Quetiapine 600 mg/day.
- B. Risperidone 4 mg/day.
- C. Ziprasidone 160 mg/day with food.
- D. Paliperidone palmitate 156 mg/month.

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## Section Five.

### MTHFR Polymorphisms and Folate Metabolism in Psychiatric Practice

#### Methylenetetrahydrofolate Reductase (MTHFR) Deficiency

- MTHFR enzyme converts 5,10-methylenetetrahydrofolate → 5-methyltetrahydrofolate (active folate).
- Common polymorphisms: C677T (homozygous ~10–12% of population) and A1298C.
- C677T homozygous → 70% reduction in enzyme activity → elevated plasma homocysteine, reduced active folate (L-methylfolate) availability in CNS.
- Strongest psychiatric associations: – Treatment-resistant depression – Schizophrenia (negative symptoms) – Bipolar depression – Increased risk of SSRI non-response or side effects

#### High-Yield Clinical Implications for PMHNPs

- Standard folic acid (synthetic form in most supplements and fortified foods) requires conversion by MTHFR → ineffective in homozygous C677T patients.
- Vitamin B12 absorption and recycling in the methionine cycle depend on active folate → MTHFR deficiency can cause functional B12 deficiency despite normal serum B12 levels.
- Elevated homocysteine (>12–15 μmol/L) is an independent risk factor for depression relapse and cardiovascular events.

#### Evidence-Based Prescribing in MTHFR Deficiency

1. First-line: L-methylfolate (Deplin®) 7.5–15 mg/day – Active, pre-methylated folate that bypasses MTHFR enzyme entirely – FDA-approved as adjunct for MDD; Level 1

evidence in patients with SSRI partial/non-response and MTHFR mutations – Typical effective dose 15 mg (7.5 mg often insufficient in C677T homozygotes)

2. Add methylcobalamin (active B12) 1000–2000 mcg/day + pyridoxal-5-phosphate (active B6) 20–50 mg/day – Supports methionine synthase and homocysteine remethylation
3. Avoid: – Standard folic acid (ineffective and may paradoxically block folate receptors) – Cyanocobalamin (requires additional conversion steps)

### Monitoring & Safety

- Baseline and periodic homocysteine levels (goal <10 µmol/L)
- No upper limit toxicity with L-methylfolate (renal excretion)
- Rare activation/mania risk in bipolar patients (same as any antidepressant adjunct)



**Q20.** A 34-year-old female with treatment-resistant depression has failed four adequate antidepressant trials. Genetic testing reveals homozygous MTHFR C677T mutation and homocysteine 22 µmol/L. Serum B12 and folate are “normal.” Which adjunctive agent has the strongest evidence for this patient?

- A. Folic acid 1 mg daily.
- B. Pyridoxine 100 mg daily.
- C. Cyanocobalamin 1000 mcg IM monthly.
- D. L-methylfolate 15 mg daily.

**Q21.** A 45-year-old male with schizophrenia and C677T homozygous MTHFR presents with fatigue and cognitive slowing. Serum B12 is 450 pg/mL (normal), but methylmalonic acid is elevated. What is the most likely mechanism?

- A. Intrinsic factor deficiency.
- B. Dietary B12 deficiency.
- C. Functional B12 deficiency due to lack of active folate cofactor.
- D. Proton-pump inhibitor use.

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### Section Six.

#### Motivational Interviewing (MI) – Core Intervention for Substance Use Disorders

**Definition and Evidence Base** Motivational Interviewing is a person-centered, directive counseling style designed to resolve ambivalence and enhance intrinsic motivation to change. Developed by Miller & Rollnick, MI is the most extensively studied psychosocial intervention for substance use disorders (SUDs).

- Level 1 evidence across alcohol, cannabis, stimulants, opioids, and tobacco.
- Largest effect sizes when used in early stages of change (precontemplation/contemplation) and in brief interventions (1–4 sessions).
- Superior to confrontational approaches; equivalent or additive to CBT and 12-step facilitation.

#### **Four Core Principles (OARS)**

- Open-ended questions
- Affirmations (genuine statements of strength/appreciation)
- Reflective listening (simple, complex, and amplified reflections)
- Summaries (collecting, linking, transitional)

#### **Four Processes of MI (exam high-yield)**

1. Engaging (building rapport – most critical)
2. Focusing (negotiating agenda)
3. Evoking (eliciting patient’s own “change talk” – DARN-CAT)
4. Planning (developing concrete commitment and action steps)

#### **Key Communication Skills to Avoid (Leads to Sustain Talk/Discord)**

- Confrontation/argument
- Unsolicited advice or prescribing solutions
- Judging, blaming, shaming
- Labeling (e.g., “alcoholic,” “addict”) without patient must self-identify

#### **Change Talk vs. Sustain Talk**

- Preparatory change talk (DARN): Desire, Ability, Reason, Need
- Mobilizing change talk (CAT): Commitment, Activation, Taking steps → strongest predictor of actual behavior change

#### **Clinical Application in Substance Use Settings**

- First-line for patients who are ambivalent, defensive, or mandated to treatment
  - Integrated into SBIRT (Screening, Brief Intervention, Referral to Treatment)
  - Enhances retention in medication for opioid use disorder (MOUD) programs when added to buprenorphine/naltrexone prescribing
  - Essential skill for PMHNP-led SUD clinics, dual-diagnosis programs, and emergency psychiatry
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**Q22.** A 28-year-old male with alcohol use disorder states, “I know drinking is ruining my life, but I’m not ready to quit completely.” Using MI spirit, which response best evokes change talk?

- A. “You’re in denial – if you don’t stop now you’ll lose your job and family.”
- B. “On one hand you see the problems alcohol is causing, and on the other hand you’re not ready to quit completely. What would need does drinking still meet for you?”
- C. “You need to go to 90 AA meetings in 90 days like everyone else.”
- D. “Let me explain the stages of change so you understand where you are.”

**Q23.** During an MI session with a patient using methamphetamine, she says: “I guess I could cut back a little if I really wanted to, but my friends all use and it helps me stay awake at work.” Which part of her statement is preparatory change talk?

- A. “...my friends all use.”
- B. “...it helps me stay awake at work.”
- C. “...I guess I could cut back a little if I really wanted to.”
- D. “...but”

**Q24.** A 35-year-old male with opioid use disorder is ambivalent about starting buprenorphine. He says, “I’m scared of being dependent on another drug.” The PMHNP responds: “You’re really weighing the pros and cons carefully, and one big concern is trading one dependency for another. What are some reasons you’ve been considering medication?” This response best demonstrates:

- A. Premature focus.
  - B. Simple reflection and evoking change talk.
  - C. Confrontation of resistance.
  - D. Giving advice without permission.
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## Section Seven.

### **Cultural Humility, Empathy, and Patient-Centered Care: Core Competencies for PMHNPs**

Cultural factors are the FIRST and most powerful determinant of help-seeking, treatment engagement, adherence, and outcome in mental health care. Current evidence (APA, SAMHSA, and Joint Commission standards) mandates that cultural formulation precede diagnosis and treatment planning.

#### **Key Principles for Certification Exams**

1. **Culture Comes FIRST** – Always begin with the patient’s cultural identity, explanatory model of illness, and psychosocial context (DSM-5 Cultural Formulation Interview – CFI). – Misdiagnosis rates (e.g., schizophrenia vs. spiritual emergency, depression vs. “ataque de nervios”) drop dramatically when culture is assessed first.
2. **Empathy Precedes Education or Intervention** – Accurate empathy (reflection of feeling + meaning) is the strongest predictor of therapeutic alliance across all ethnic groups. – High-yield phrase: “It makes sense you would feel \_\_\_ when you’ve been through \_\_\_.” – Empathy > sympathy, advice, or reassurance.
3. **Ask, Don’t Assume** – “What do people from your background usually call this kind of problem?” – “Who in your family or community do you normally turn to for help with emotional suffering?” – “Are there any cultural or spiritual practices that are important to include in your healing?”
4. **Patient’s Needs and Values Drive the Plan** – Shared decision-making with cultural congruence improves outcomes by 20–40% in minority populations. – Never impose Eurocentric models (e.g., “You must take medication every day” vs. negotiating culturally acceptable delivery – liquid, family administration, prayer before dose).

#### **High-Yield Cultural Examples Frequently Tested**

- African American patients → higher mistrust due to historical trauma; offer peer navigators, church-based programs
- Latino patients → familismo and personalismo; include family in sessions when requested
- Asian patients → stigma and somatic presentation; use indirect language (“nerves,” “energy imbalance”)
- Native American/Alaska Native → historical trauma and ceremonial practices; collaborate with tribal healers
- Muslim patients → Ramadan fasting, gender-concordant providers, pork-free medications (some capsules)



**Q25.** A 42-year-old Vietnamese woman presents with sadness, fatigue, and “heavy limbs. She denies “depression” and says, “In my culture we call this ‘thinking too much’ (co tam).” The PMHNP’s most culturally appropriate first response is:

- A. “Tell me more about what ‘thinking too much’ means to you and how your family usually helps when someone has it.”
- B. “That sounds like major depression – let’s start sertraline today.”
- C. “In America we treat this with therapy and medication.”
- D. “You need to stop thinking so much and exercise more.”

**Q26.** A 29-year-old transgender male of color with suicidal ideation states, “No one has ever taken my pain seriously because of how I look and my community are treated.” The most therapeutic PMHNP response is:

- A. “I’m going to admit you to the hospital for safety.”
- B. “Have you tried mindfulness apps?”
- C. “It makes complete sense you would feel that way after everything you and your community have been through. Your pain is real, and I’m here to work with you on your terms.”
- D. “You need to focus on the present, not past discrimination.”

**Q27.** A 55-year-old Orthodox Jewish male with bipolar disorder stops lithium during Passover because of kashrut concerns about the capsule. His manic symptoms are returning. The best intervention is:

- A. Insist he resume lithium immediately for safety.
- B. Switch to haloperidol decanoate injection.
- C. Explore kosher-certified lithium options or liquid formulation and collaborate with his rabbi.
- D. Tell him religious observance is less important than medication adherence.

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## **Section Eight.**

### **Lisdexamfetamine (Vyvanse) – Prodrug Pharmacology and Clinical Advantages**

#### **Key High-Yield Facts for PMHNP Exams**

- Lisdexamfetamine is an inactive prodrug consisting of dextroamphetamine covalently bonded to the amino acid L-lysine.

- Pharmacokinetic profile: – Not active until absorbed in the GI tract and enzymatically cleaved by red blood cells (rate-limited by peptide hydrolysis). – Conversion occurs gradually → smooth, extended plasma dextroamphetamine levels ( $T_{max}$  ~3.5–4.5 hours, duration 10–14 hours). – Oral, snorting, or IV abuse produces the same slow onset → dramatically reduced abuse liability and “likability” compared to immediate-release amphetamines.

### Evidence-Based Advantages

1. Lowest abuse/diversion potential of all stimulant formulations (Schedule II but DEA considers it lower risk than Adderall).
2. Once-daily dosing with consistent coverage through evening homework/occupational demands.
3. Less rebound/crash and lower incidence of irritability/anxiety compared to mixed amphetamine salts.
4. FDA indications: ADHD (ages  $\geq 6$ ), moderate-to-severe binge eating disorder (BED) in adults (only stimulant approved for BED).

### \*\*Safety & Monitoring Pearls

- Conversion ratio: ~30 mg lisdexamfetamine  $\approx$  10 mg dextroamphetamine
- Capsules can be dissolved in water for patients with swallowing difficulty (remains abuse-resistant).
- Same cardiovascular and psychiatric precautions as all stimulants (BP/HR monitoring, psychosis screening).
- Serotonin syndrome risk if combined with serotonergic agents (rare but reported).



**Q28.** A 16-year-old male with ADHD is caught selling his Adderall XR to classmates. His parents request a stimulant with lower street value and abuse potential. Which medication property makes lisdexamfetamine the best choice?

- A. It is a partial D2 agonist.
- B. It is a prodrug requiring enzymatic cleavage after GI absorption.
- C. It is a norepinephrine-dopamine reuptake inhibitor only.

D. It has a 24-hour duration of action.

**Q29.** A 34-year-old female with ADHD and a history of cocaine use disorder is starting stimulant therapy. She works 12-hour nursing shifts and needs coverage until 10 p.m. Which regimen is most appropriate?

- A. Methylphenidate ER 36 mg each morning.
- B. Lisdexamfetamine 50 mg each morning.
- C. Mixed amphetamine salts XR 30 mg at 7 a.m. + 10 mg booster at 2 p.m.
- D. Dexmethylphenidate focalin XR 30 mg each morning.

**Q30.** A 42-year-old female with moderate–severe binge eating disorder (3+ binge days/week) has BMI 34 and failed topiramate. Which stimulant is FDA-approved as monotherapy for this condition?

- A. Methylphenidate.
- B. Dextroamphetamine.
- C. Lisdexamfetamine.
- D. Phentermine.

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## Section Nine.

### Neuroanatomy and Cognitive Screening in Geriatric Psychiatry

#### Clock Drawing Test (CDT) – High-Yield Geriatric Screening Tool

- Inability to draw a clock face (especially contour, numbers, or hands) with intact vision and motor function indicates visuospatial/constructional impairment.
- Strongly localizes to **RIGHT hemisphere dysfunction** (most commonly right parietal lobe).
- Common causes in elders: – Alzheimer’s disease (early posterior variant) – Vascular dementia (right MCA stroke) – Lewy body dementia – Delirium

#### Right vs. Left Hemisphere Functions – Exam Essentials

Hemisphere	Key Functions Tested on Exam	Classic Deficits
<b>Right</b>	Visuospatial skills Clock drawing Facial recognition/expression Prosody (emotional tone of voice) Attention to left visual field Dressing apraxia	Poor clock drawing Neglect of left side Flat or inappropriate affect Cannot recognize familiar faces (prosopagnosia)

Hemisphere	Key Functions Tested on Exam	Classic Deficits
Left	Language (Broca & Wernicke) Logical/analytical reasoning Math calculation Right visual field	Aphasia, agraphia, acalculia, right-sided neglect

### Wernicke's Area (Receptive Aphasia)

- Location: Posterior superior temporal gyrus – **left hemisphere** (Planum temporale, Brodmann 22)
- Function: Language comprehension
- Classic presentation: Fluent speech, normal prosody, but meaningless content (word salad), poor repetition, **impaired comprehension**
- Patients are often unaware of deficit → appear confused or paranoid

### High-Yield Geriatric Pearl

- Clock drawing + 3-item recall + fluency = Mini-Cog ( $\geq 3/5$  rules out dementia with high specificity)
- Abnormal clock alone → order brain imaging to rule out right parietal stroke or tumor



**Q31.** An 82-year-old female in the memory clinic draws a clock with all numbers crowded on the right side and ignores the left half of the page. She otherwise speaks fluently and follows commands. This finding most specifically indicates dysfunction in which area?

- Right parietal lobe.
- Left parietal lobe.
- Left temporal lobe.
- Bilateral frontal lobes.

**Q32.** A 75-year-old male post-right MCA stroke can calculate  $7 \times 8$  correctly and name objects but cannot recognize his daughter's face, has flat affect, and neglects the left arm when dressing. These deficits are explained by damage to the:

- Left hemisphere.

- B. Right hemisphere.
- C. Dominant temporal lobe.
- D. Bilateral occipital lobes.

**Q33.** An 88-year-old male with new-onset confusion speaks in long, fluent sentences such as “The florp is very blinted today with the kerfluffles.” He becomes agitated when staff cannot understand him. Comprehension and repetition are severely impaired. This presentation is most consistent with:

- A. Broca’s aphasia.
- B. Global aphasia.
- C. Wernicke’s (receptive) aphasia.
- D. Right hemisphere stroke.

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### **Key References for PMHNP Certification Exam Review Content**

The information presented in this monthly update series is synthesized from current, evidence-based sources aligned with standards for psychiatric-mental health nurse practitioner practice and certification preparation. The following represent primary resources informing the high-yield topics covered (e.g., psychopharmacology adverse effects, monitoring, neurobiology, cultural competence, and motivational interviewing).

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- Miller, W. R., & Rollnick, S. (2013). *Motivational interviewing: Helping people change* (3rd ed.). Guilford Press.
- Stahl, S. M. (2021). *Stahl's essential psychopharmacology: Neuroscientific basis and practical applications* (5th ed.). Cambridge University Press.

## Answers

**A1.** *Correct Answer: B. Explanation: This presentation is consistent with acute dystonia, a common EPS with risperidone's D2 affinity. Anticholinergics like benztropine provide rapid relief, allowing continuation with dose adjustment, per evidence-based protocols.*

**A2.** *Correct Answer: B. Explanation: ANC <1000/ $\mu$ L with symptoms mandates immediate discontinuation to prevent agranulocytosis progression, as per FDA REMS guidelines, prioritizing patient safety over efficacy.*

**A3.** *Correct Answer: B. Explanation: Quetiapine's association with cataracts necessitates annual ocular screening, especially with prolonged use; early detection via slit-lamp allows timely intervention without abrupt changes.*

**A4.** *Correct Answer: C. Explanation: Significant early weight gain (>7%) warrants switching to a lower-risk antipsychotic like ziprasidone, per APA guidelines, integrating patient-centered goals to improve adherence and cardiometabolic health.*

**A5.** *Correct Answer: A. Explanation: HLA-B1502 screening is mandatory in at-risk ethnic groups to predict SJS/TEN, reducing incidence by up to 90% per pharmacogenomic evidence, before proceeding with therapy.\**

**A6.** *Correct Answer: D. Explanation: Any rash during lamotrigine initiation requires immediate discontinuation due to potential progression to SJS, emphasizing slow titration and hypersensitivity vigilance in guidelines.*

**A7.** *Correct Answer: C. Explanation: Lamotrigine is the mood stabilizer with the least weight gain risk, supported by long-term trials, making it preferable for patients with cardiometabolic concerns.*

**A8.** *Correct Answer: B. Explanation: Alpha-1 blockade causes orthostatic hypotension; conservative measures like hydration prevent falls, with acute haloperidol reserved for agitation while planning de-escalation.*

**A9.** *Correct Answer: B. Explanation: Valproate-induced hyperammonemia requires discontinuation and carnitine to restore urea cycle function, even with normal LFTs, preventing progression to coma.*

**A10.** *Correct Answer: A. Explanation: Elevated pro-inflammatory cytokines like IL-6 predict poor SSRI response; anti-inflammatory agents like minocycline improve outcomes in biomarker-stratified trials, advancing immunopsychiatry.*

**A11.** *Correct Answer: A. Explanation: Venlafaxine at  $\geq 225$  mg achieves meaningful norepinephrine reuptake inhibition in addition to serotonin, with superior efficacy in severe/melancholic depression compared to SSRI monotherapy.*

**A12.** *Correct Answer: B. Explanation: FDA-cleared high-frequency rTMS directly excites hypoactive left DLPFC neurons and is guideline-recommended for executive dysfunction in treatment-resistant cases.*

**A13.** *Correct Answer: D. Explanation: SSRIs are first-line for both PTSD and MDD and consistently demonstrate reduction in amygdala reactivity on functional imaging studies, unlike the other options.*

**A14.** *Correct Answer: C. Explanation: Valproate carries the highest neural-tube defect risk of all mood stabilizers; rapid taper with cross-coverage and high-dose folate is standard to minimize fetal exposure while preventing maternal mania relapse.*

**A15.** *Correct Answer: B. Explanation: Kava is associated with rare but catastrophic hepatotoxicity; professional guidelines and FDA warnings contraindicate its use in psychiatric practice.*

**A16.** *Correct Answer: B. Explanation: Clozapine is the only antipsychotic with replicated Level I evidence and an FDA-specific indication for reduction of recurrent suicidal behavior in schizophrenia/schizoaffective disorder.*

**A17.** *Correct Answer: A. Explanation: Lamotrigine is the only mood stabilizer with evidence of cognitive enhancement and virtually no sedation, making it ideal for high-functioning patients.*

**A18.** *Correct Answer: D. Explanation: Fluoxetine and escitalopram are the least sedating SSRIs; fluoxetine's mild activating profile and long half-life make it frequently tested in occupational safety scenarios.*

**A19.** *Correct Answer: C. Explanation: Ziprasidone consistently shows the lowest weight-gain liability among all antipsychotics (often slight loss), followed closely by aripiprazole and lurasidone (ZAL mnemonic).*

**A20.** *Correct Answer: D. Explanation: Only L-methylfolate bypasses the defective MTHFR enzyme. Multiple RCTs and meta-analyses show 15 mg adjunctive L-methylfolate achieves 30–40% response in SSRI non-responders with MTHFR polymorphisms or elevated homocysteine.*

**A21.** *Correct Answer: C. Explanation: MTHFR deficiency impairs the folate-dependent recycling of B12, causing functional deficiency and elevated methylmalonic acid despite normal serum B12 levels. Treatment requires L-methylfolate + methylcobalamin.*

**A22.** *Correct Answer: B. Explanation: This complex reflection demonstrates empathy, avoids argument, and invites the patient to explore ambivalence – core MI technique.*

**A23.** *Correct Answer: C. Explanation: “I could” = Ability language (part of DARN preparatory change talk). The clinician should reflect and evoke more of this rather than confront the sustain talk.*

**A24.** *Correct Answer: B. Explanation: Acknowledging ambivalence (reflection) followed by an open question to elicit the patient's own motivations is hallmark MI and significantly increases MOUD initiation and retention.*

**A25.** *Correct Answer: A. Explanation: Starting with the patient's cultural explanatory model (CFI question 1) demonstrates respect and builds alliance; premature diagnosis or treatment risks disengagement.*

**A26.** *Correct Answer: C. Explanation: Accurate empathy + validation of systemic trauma is the strongest alliance-builder in marginalized patients and is required before safety planning or treatment recommendations.*

**A27.** *Correct Answer: C. Explanation: Respecting religious observance while problem-solving within the patient's value system preserves alliance and prevents relapse; culture and patient needs come first.*

**A28.** *Correct Answer: B. Explanation: Lisdexamfetamine's prodrug design prevents rapid dopamine release when snorted or injected, resulting in the lowest abuse liability of all amphetamine formulations (DEA and clinical trial data).*

**A29.** *Correct Answer: B. Explanation: Lisdexamfetamine provides 12–14 hours of smooth coverage from a single morning dose with the lowest misuse risk—ideal for patients with substance use history and long workdays.*

**A30.** *Correct Answer: C. Explanation: Lisdexamfetamine (Vyvanse) is the only stimulant with an FDA indication for moderate-to-severe BED in adults, reducing binge days by ~60–70% in pivotal trials.*

**A31.** *Correct Answer: A. Explanation: Left-sided neglect and impaired clock drawing are hallmark signs of right (nondominant) parietal lobe dysfunction.*

**A32.** *Correct Answer: B. Explanation: Facial recognition, emotional prosody, and visuospatial attention are primarily right-hemisphere functions.*

**A33.** *Correct Answer: C. Explanation: Fluent but incomprehensible speech with impaired comprehension and lack of insight = classic Wernicke's (receptive) aphasia from left posterior superior temporal gyrus lesion.*