# 🔬 Medical Workup Guidelines for Psychiatric Conditions

## 🧪 Initial Psychiatric Evaluation Workup

### Universal Baseline Laboratory Tests

#### Complete Blood Count (CBC) with Differential

- **Purpose:** Screen for anemia, infection, inflammation
- **Key components:** Hemoglobin, hematocrit, white blood cell count, platelet count
- **Clinical significance:** Anemia can cause fatigue, cognitive impairment; abnormal WBC may indicate infection or inflammation contributing to psychiatric symptoms

#### Comprehensive Metabolic Panel (CMP)

- **Purpose:** Assess kidney function, liver function, electrolyte balance, glucose metabolism
- **Key components:** Glucose, BUN, creatinine, sodium, potassium, calcium, albumin, total protein, AST, ALT, alkaline phosphatase, bilirubin • **Clinical significance:** Electrolyte imbalances can mimic psychiatric symptoms; abnormal liver/kidney function may affect medication metabolism

#### Thyroid Function Tests

- **Purpose:** Screen for thyroid disorders that can present with psychiatric symptoms
- **Key components:** TSH (primary screen), Free T4 (if TSH abnormal)
- **Clinical significance:** Hypothyroidism can present as depression, cognitive slowing; hyperthyroidism can present as anxiety, insomnia, mania

#### Urinalysis

- **Purpose:** Screen for substance use, urinary tract infection, kidney disease
- **Key components:** Specific gravity, pH, glucose, protein, blood, leukocyte esterase, nitrites
- **Clinical significance:** UTIs can cause acute confusion in elderly; protein/blood may indicate kidney disease affecting medication clearance

### Conditional Baseline Tests

#### Urine Drug Screen

- **When to order:** History of substance use, unexplained symptoms, altered mental status, treatment-resistant symptoms
- **Key components:** Amphetamines, benzodiazepines, cannabis, cocaine, opiates, PCP
- **Clinical significance:** Substance use can cause or exacerbate psychiatric symptoms; important for differential diagnosis

#### Vitamin B12 and Folate Levels

- **When to order:** Cognitive symptoms, elderly patients, malnutrition risk, vegans/vegetarians, alcohol use disorder
- **Clinical significance:** Deficiencies can cause depression, irritability, psychosis, cognitive impairment

### Vitamin D Level

- **When to order:** Depression, seasonal pattern, limited sun exposure, elderly, institutionalized patients
- **Clinical significance:** Low levels associated with depression, particularly seasonal affective disorder

### Lipid Panel

- **When to order:** Before starting medications with metabolic effects (antipsychotics, mood stabilizers), cardiovascular risk factors • **Key components:** Total cholesterol, LDL, HDL, triglycerides
- **Clinical significance:** Baseline for monitoring metabolic effects of medications; cardiovascular risk assessment

### Hemoglobin A1c

- **When to order:** Before starting medications with metabolic effects, diabetes risk factors, obesity
- **Clinical significance:** Screens for diabetes/prediabetes; baseline for monitoring metabolic effects of medications

### Infectious Disease Screening

- **When to order:** Risk factors present, unexplained neuropsychiatric symptoms
- **Tests to consider:** HIV, syphilis (RPR/VDRL), hepatitis panel
- **Clinical significance:** HIV and syphilis can cause neuropsychiatric symptoms; hepatitis status important for medication selection

## Specialized Tests Based on Clinical Presentation

### Electrocardiogram (ECG)

- **When to order:** Before starting medications with cardiac effects (TCAs, some antipsychotics), age >40, cardiac risk factors
- **Key parameters:** QTc interval, heart rate, rhythm, conduction abnormalities
- **Clinical significance:** Baseline for medications that can prolong QTc; screen for underlying cardiac disease

### Electroencephalogram (EEG)

- **When to order:** New-onset psychosis, confusion, altered consciousness, suspected seizure disorder
- **Clinical significance:** Can identify seizure disorders, encephalopathies that may present with psychiatric symptoms

### Brain Imaging

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**When to order:** New-onset psychosis or mania after age 40, cognitive changes, focal neurological signs, history of head trauma, treatment resistant symptoms

- **Options:** CT (faster, less expensive) or MRI (better detail, no radiation)
- **Clinical significance:** Can identify structural lesions, cerebrovascular disease, demyelination, atrophy

### Lumbar Puncture

- **When to order:** Suspected CNS infection, autoimmune encephalitis, demyelinating disorders with psychiatric presentation
- **Key components:** Cell count, protein, glucose, culture, specialized antibody panels
- **Clinical significance:** Can identify infectious or inflammatory causes of psychiatric symptoms

### Heavy Metal Screening

- **When to order:** Exposure history, unexplained neuropsychiatric symptoms, cognitive changes
- **Key tests:** Lead, mercury, arsenic levels
- **Clinical significance:** Heavy metal toxicity can cause mood changes, psychosis, cognitive impairment

### Genetic Testing

- **When to order:** Treatment resistance, unusual presentation, family history of genetic disorders, pharmacogenetic guidance
- **Options:** Cytochrome P450 testing, targeted gene panels, chromosomal

microarray

- **Clinical significance:** May guide medication selection, identify genetic causes of psychiatric symptoms

## Normal Ranges and Interpretation

| | | |
|---|---|---|
| Hemoglobin | **Males: 13.5-17.5 g/dL Females: 12.0-15.5 g/dL** | Low: Fatigue, cognitive impairment, depression |
| White Blood Cells | **4,500-11,000/µL** | High: Infection, inflammation contributing to psychiatric symptoms Low: Medication side effect (e.g., clozapine) |
| Sodium | **135-145 mEq/L** | Low: Confusion, lethargy, seizures (SIADH from SSRIs) High: Irritability, confusion, psychosis |

Glucose **70-99 mg/dL**

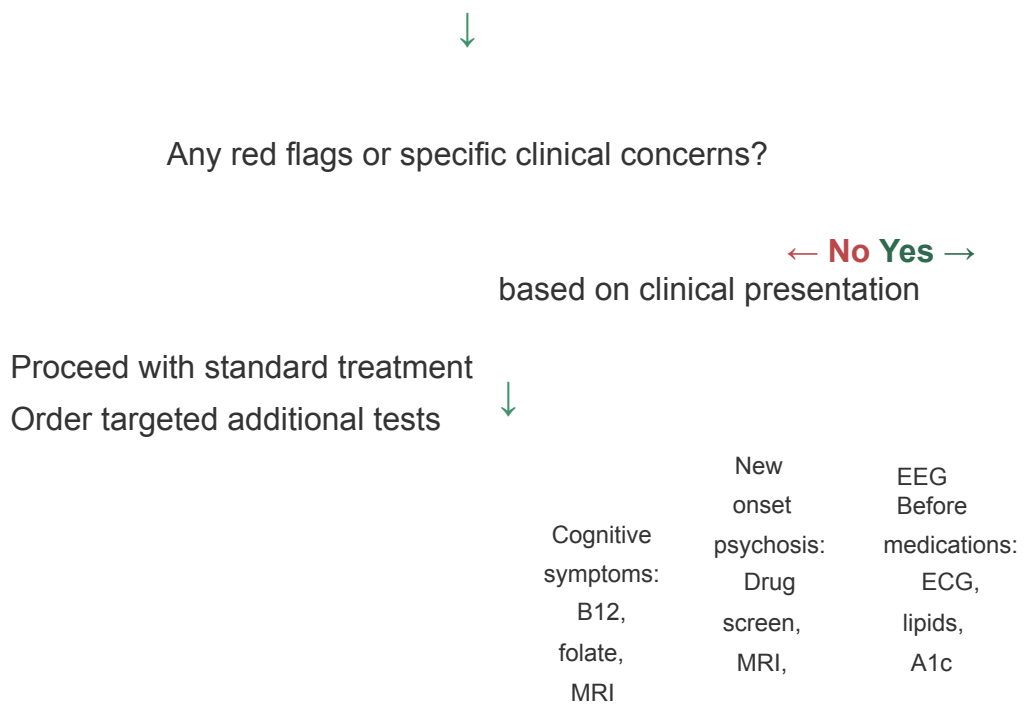
Low: Confusion, anxiety, irritability
High: Cognitive impairment, mood changes

| | | |
|---|---|---|
| BUN | **7-20 mg/dL** | High: Uremia causing cognitive impairment, psychosis |
| Creatinine | **Males: 0.7-1.3 mg/dL Females: 0.6-1.1 mg/dL** | High: Renal impairment affecting medication clearance |

| | | |
|---|---|---|
| AST | **10-40 U/L** | High: Liver dysfunction affecting medication metabolism |
| ALT | **7-56 U/L** | High: Liver dysfunction affecting medication metabolism |
| TSH | **0.4-4.0 mIU/L** | Low: Hyperthyroidism (anxiety, insomnia, mania)<br>High: Hypothyroidism (depression, cognitive slowing) |
| Free T4 | **0.8-1.8 ng/dL** | Low: Hypothyroidism (depression, cognitive slowing)<br>High: Hyperthyroidism (anxiety, insomnia, mania) |
| Vitamin B12 | **200-900 pg/mL** | Low: Depression, irritability, psychosis, cognitive impairment |
| Folate | **2-20 ng/mL** | Low: Depression, cognitive impairment |
| Vitamin D (25- OH) | **30-80 ng/mL** | Low: Associated with depression, seasonal affective disorder |
| QTc Interval | **Males: <430 ms Females: <450 ms** | Prolonged: Risk of arrhythmia with QTc-prolonging medications |

Initial Psychiatric Evaluation

Universal Baseline Tests: CBC, CMP, TSH, Urinalysis




**Warning: Laboratory results must always be interpreted in clinical context. Normal lab values do not rule out all medical causes of psychiatric symptoms. Conversely, abnormal values may be incidental and not causally related to psychiatric presentation.**

***Clinical Pearl:*** *The yield of extensive medical testing in young patients with typical psychiatric presentations and no medical comorbidities is low. Focus on targeted testing based on specific risk factors and clinical presentation. However, a basic metabolic workup is recommended for all patients to rule out common medical contributors to psychiatric symptoms.*

## ❤️ Medication-Specific Monitoring Guidelines

### Antipsychotic Medications

## Baseline Assessments (Before Starting)

- Personal and family history of diabetes, obesity, dyslipidemia, cardiovascular disease
- Weight and BMI
- Waist circumference
- Blood pressure
- Fasting plasma glucose
- Fasting lipid profile
- ECG (if cardiac risk factors or QTc-prolonging medication)
- Abnormal Involuntary Movement Scale (AIMS)

## Follow-up Monitoring Schedule

Baseline 4 weeks 8 weeks 12 weeks Quarterly

Annually

| | | | | | |
|---|---|---|---|---|---|
| Weight/BMI | ✓ | ✓ | ✓ | ✓ | ✓ |
| Waist circumference | | | ✓ | | ✓ |
| Blood pressure | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fasting glucose | | | ✓ | | ✓ |

| | | | | | |
|---|---|---|---|---|---|
| Fasting lipids | | | ✓ | | ✓ |
| AIMS | | | ✓ | | ✓ |
| ECG | As clinically indicated | | | | |

### Clozapine-Specific Monitoring

- Absolute Neutrophil Count (ANC):
  - Weekly for first 6 months
  - Every 2 weeks for months 6-12
  - Monthly after 12 months (if stable)
- Myocarditis monitoring:
  - ECG and troponin at baseline and weekly for first month
- Consider clozapine levels if:
  - Response inadequate
  - Suspected toxicity
  - Poor adherence
  - Drug interactions

## Mood Stabilizers

### Lithium

- Baseline assessments:
  - CBC
  -

- Electrolytes, BUN, creatinine
    - Thyroid function tests (TSH, Free T4)
    - Pregnancy test (if applicable)
    - ECG (for patients >40 years or with cardiac risk factors)
    - Urinalysis
    - Calcium level
- Lithium levels:
    - 5-7 days after initiation or dose change
    - Every 3-6 months during maintenance
    - More frequently with signs of toxicity, dehydration, or medication changes
- Renal function (BUN, creatinine, eGFR):
    - Every 3-6 months for first year
    - Every 6-12 months thereafter
- Thyroid function (TSH, Free T4 if TSH abnormal):
    - Every 6-12 months
- Calcium level:
    - Annually (to screen for hyperparathyroidism)

**Valproate**

- Baseline assessments:
    - LFTs (AST, ALT, bilirubin, albumin)
    - CBC with platelets

    - Pregnancy test (if applicable)
    - Weight and BMI
- Valproate levels:
    - After reaching steady state (5-7 days)
    - As clinically indicated (poor response, suspected toxicity)
- LFTs and CBC:
    - Monthly for first 3 months
    - Every 3-6 months thereafter
- Weight:
    - Monthly for first 3 months
    - Quarterly thereafter

**Carbamazepine**

- Baseline assessments:
    - CBC
    - LFTs
    - Electrolytes
    - Pregnancy test (if applicable)
- Carbamazepine levels:
    - After reaching steady state (3-5 days)
    - As clinically indicated
- CBC and LFTs:

        - Monthly for first 3 months
        - Every 6-12 months thereafter
    - Sodium levels:
        - Periodically (risk of hyponatremia)

#### Lamotrigine

- Baseline assessments:
    - CBC
    - LFTs
    - BUN, creatinine
- No routine blood level monitoring required
- Clinical monitoring:
    - Skin rash (especially during titration)

### Antidepressants

#### SSRIs/SNRIs

- Baseline assessments:
    - Blood pressure (especially for SNRIs)
    - Weight
- Follow-up monitoring:
    - Blood pressure at each visit (for SNRIs)
    - Weight periodically

    - Clinical monitoring for suicidality, especially in first month and after dose changes
    - Sodium levels in elderly or those on diuretics (risk of SIADH)
- No routine blood tests required unless clinically indicated

**Tricyclic Antidepressants (TCAs)**

- Baseline assessments:
    - ECG (QTc interval)
    - Blood pressure
    - Weight
- Follow-up monitoring:
    - ECG after reaching therapeutic dose
    - Blood pressure at each visit
    - TCA blood levels if:
        - Poor respons e
        - Suspected toxicity
        - Elderly patients
        - Hepatic impairment

**Monoamine Oxidase Inhibitors (MAOIs)**

- Baseline assessments:
    - Blood pressure
    - LFTs

    - CBC
- Follow-up monitoring:
    - Blood pressure at each visit (risk of hypertensive crisis)
    - LFTs periodically

## Stimulants for ADHD

### Baseline Assessments

- Blood pressure and heart rate
- Weight and height (for children/adolescents)
- Cardiac history and examination
- ECG if cardiac risk factors present

### Follow-up Monitoring

- Blood pressure and heart rate:
    - At each dose adjustment
    - Every 3-6 months during stable treatment
- Weight:
    - Monthly for first 3 months
    - Every 3-6 months thereafter
- Height (for children/adolescents):
    - Every 6 months
- Clinical monitoring:

- Sleep patterns
- Appetite
- Mood changes
- Tics (if present or history)

**Warning: Monitoring guidelines should be individualized based on patient factors (age, comorbidities, concomitant medications) and clinical presentation. More frequent monitoring may be necessary for high-risk patients, during dose adjustments, or when clinical status changes.**

***Clinical Pearl:*** *Create a monitoring calendar for patients on complex medication regimens to ensure appropriate follow-up. Consider using electronic health record reminders for monitoring parameters. Document baseline values to allow meaningful comparison over time.*

## 🧠 Condition-Specific Workup Guidelines

### First-Episode Psychosis

#### Essential Workup

- Comprehensive history and physical examination
- CBC, CMP, TSH
- Urine drug screen
- Brain imaging (MRI preferred over CT)
- EEG (if seizure activity suspected)

**Consider Based on Clinical Presentation**

- Infectious disease screening (HIV, syphilis)
- Autoimmune panel (ANA, anti-NMDA receptor antibodies)
- Heavy metal screening
- Porphyria screening
- Ceruloplasmin (Wilson's disease)
- Lumbar puncture
- Genetic testing

***Clinical Pearl:*** *First-episode psychosis warrants a more extensive medical workup than recurrent psychosis with established diagnosis. Red flags suggesting medical etiology include atypical age of onset (very early or late), acute/abrupt onset, visual hallucinations, fluctuating course, and neurological signs/symptoms.*

## Treatment-Resistant Depression

### Essential Workup

- CBC, CMP, TSH
- Vitamin B12, folate, vitamin D
- Inflammatory markers (ESR, CRP)
- Review of medication adherence (consider therapeutic drug monitoring)

### Consider Based on Clinical Presentation

- Sleep study (if sleep apnea suspected)

- Hormonal evaluation (cortisol, testosterone, estrogen)
- Autoimmune screening
- Brain imaging
- Pharmacogenetic testing
- Heavy metal screening

***Clinical Pearl:*** *Consider medical causes of treatment resistance, including undiagnosed bipolar disorder, thyroid dysfunction, chronic inflammation, sleep disorders, and substance use. Therapeutic drug monitoring can help assess medication adherence and metabolism.*

## Cognitive Impairment/Dementia

### Essential Workup

- CBC, CMP, TSH
- Vitamin B12, folate
- Brain imaging (MRI preferred)
- Cognitive assessment (MMSE, MoCA, or more comprehensive neuropsychological testing)

### Consider Based on Clinical Presentation

- Syphilis serology (RPR/VDRL)
- HIV testing
- Heavy metal screening
- Ceruloplasmin (Wilson's disease)
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- Paraneoplastic panel
- Lumbar puncture (CSF analysis for Aβ42, total tau, phosphorylated tau)
- Apolipoprotein E genotyping
- EEG
- PET scan

***Clinical Pearl:*** *Approximately 10-15% of dementia cases are potentially reversible. Key reversible causes include medication effects, thyroid dysfunction, vitamin deficiencies, normal pressure hydrocephalus, subdural hematoma, and CNS infections.*

## Bipolar Disorder

### Essential Workup

- CBC, CMP, TSH
- Urine drug screen
- Pregnancy test (if applicable)

### Consider Based on Clinical Presentation

- Brain imaging (if late onset, neurological signs, or atypical presentation)
- EEG (if seizure disorder suspected)
- Calcium level (hyperparathyroidism can mimic mood disorders)
- Infectious disease screening
- Autoimmune panel

***Clinical Pearl:*** *Medical conditions that can mimic bipolar disorder include hyperthyroidism, multiple sclerosis, epilepsy, CNS lupus, and substance use disorders. Careful history-taking regarding substance use is essential, as stimulants and steroids can induce manic-like states.*

## Anxiety Disorders

### Essential Workup

- CBC, CMP, TSH
- ECG (if palpitations or chest pain present)

### Consider Based on Clinical Presentation

- Cardiac workup (if cardiac symptoms present)
- Pulmonary function tests (if respiratory symptoms present)
- Urine catecholamines (if pheochromocytoma suspected)
- Calcium level
- Urine drug screen
- Caffeine intake assessment

***Clinical Pearl:*** *Medical conditions commonly misdiagnosed as anxiety disorders include hyperthyroidism, pheochromocytoma, cardiac arrhythmias, asthma, and caffeine or stimulant intoxication. Consider these in patients with treatment-resistant anxiety or atypical presentations.*

## Eating Disorders

### Essential Workup

- CBC, CMP with magnesium and phosphorus
- ECG
- Weight, height, BMI
- Orthostatic vital signs

### Consider Based on Clinical Presentation

- Bone density scan (DEXA) for amenorrhea >6 months
- Hormonal evaluation (FSH, LH, estradiol, testosterone)
- Amylase (if purging)
- Brain imaging (if neurological symptoms present)

**Warning: Refeeding syndrome is a potentially fatal complication in severely malnourished patients. Monitor phosphorus, magnesium, potassium, and calcium closely during refeeding. ECG monitoring is essential in patients with severe electrolyte abnormalities or BMI <15.**

## ADHD

### Essential Workup

- Comprehensive clinical assessment (including developmental history, academic/occupational functioning)
- Standardized rating scales (e.g., ADHD-RS, CAARS)
- Blood pressure, heart rate
- Weight, height (for children/adolescents)

#### Consider Based on Clinical Presentation

- Thyroid function tests
- Lead level (in children with risk factors)
- Sleep study (if sleep disorder suspected)
- EEG (if seizure disorder suspected)
- Neuropsychological testing
- ECG (if cardiac risk factors present)

***Clinical Pearl:*** *Conditions that can mimic or co-occur with ADHD include learning disorders, anxiety disorders, mood disorders, sleep disorders, and hearing/vision problems. A comprehensive assessment should rule out these conditions before confirming an ADHD diagnosis.*

## ⚠️ Special Considerations for Laboratory Interpretation

### Age-Related Considerations

#### Pediatric Patients

- Reference ranges differ from adults; use age-appropriate norms
- Growth parameters (height, weight, BMI) are essential monitoring tools
- More sensitive to medication effects on development
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Consider lead screening in children with behavioral/cognitive symptoms

### Elderly Patients

- Higher risk of adverse drug reactions and drug-drug interactions
- Renal function may be overestimated by creatinine alone; use eGFR
- More susceptible to electrolyte abnormalities (especially hyponatremia with SSRIs)
- Higher risk of medication-induced movement disorders
- More frequent monitoring recommended

## Medication Interactions with Laboratory Tests

### False Positive Results

- Antipsychotics may cause false positive pregnancy tests
- Bupropion can cause false positive amphetamine results on urine drug screens
- Sertraline can cause false positive benzodiazepine results on urine drug screens
- Quetiapine can cause false positive methadone results on urine drug screens

### Laboratory Value Changes Not Indicating Pathology

- Valproate can cause mild elevations in ammonia without hepatotoxicity
- Carbamazepine can lower thyroid hormone levels without clinical hypothyroidism
- Lithium can cause mild neutrophilia

- Clozapine can cause benign elevations in liver enzymes

### Timing Considerations

#### Optimal Timing for Medication Levels

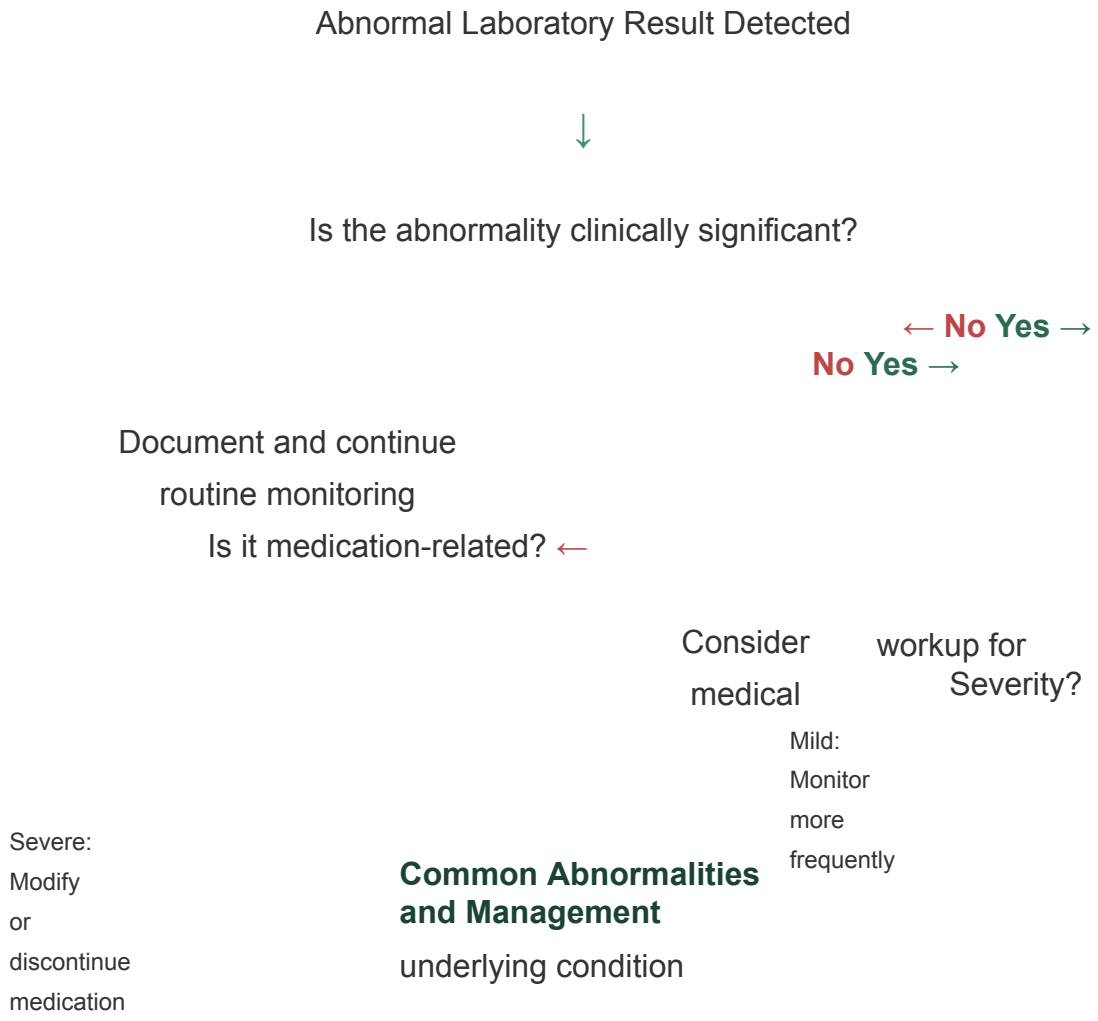
- Lithium: 12 hours after last dose (trough level)
- Valproate: Trough level (before morning dose) or random level for extended-release formulations
- Carbamazepine: Trough level (before morning dose)
- Clozapine: Trough level (before morning dose) or 12 hours after last dose
- TCAs: 12 hours after last dose

#### Timing for Metabolic Monitoring

- Fasting glucose and lipids: After 8-12 hour fast
- Prolactin: Morning sample, before medication if possible
- Cortisol: Morning sample (8-9 AM) for baseline

***Clinical Pearl:*** *Laboratory results should always be interpreted in the context of the patient's clinical presentation. A single abnormal value rarely provides a definitive diagnosis and may require repeat testing. Trends over time are often more informative than isolated values.*

##  Decision Support for Abnormal Results


Abnormal Laboratory Result Detected
Is the abnormality clinically significant?
No Yes
No Yes
Document and continue routine monitoring
Is it medication-related?
Consider medical workup for
Severity?
Mild: Monitor more frequently
Severe: Modify or discontinue medication
Common Abnormalities and Management
underlying condition

| | | |
|---|---|---|
| Elevated Liver Enzymes (ALT/AST) | Valproate, carbamazepine, antipsychotics; alcohol use; viral hepatitis | • If <3x upper limit: Continue medication with more frequent monitoring<br>• If >3x upper limit: Consider dose reduction or alternative medication<br>• If >5x upper limit or symptoms present: Discontinue medication |
| Neutropenia (ANC <1500/μL) | Clozapine, carbamazepine, other antipsychotics | • ANC 1000-1500/μL: Continue with more frequent monitoring<br>• ANC 500-1000/μL: Consider dose reduction or interruption<br>• ANC <500/μL: Discontinue medication, consider G-CSF |

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|---|---|---|
| QTc Prolongation (>450ms in males, >470ms in females) | TCAs, some antipsychotics (ziprasidone, iloperidone), citalopram at high doses | • QTc 450-500ms: Consider dose reduction, correct electrolyte abnormalities<br>• QTc >500ms: Consider medication switch, cardiology consultation |

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|---|---|---|
| Hyponatremia (Na+ <135 mEq/L) | SSRIs, SNRIs, carbamazepine; SIADH | • Na+ 130-135 mEq/L: Monitor closely, fluid restriction<br>• Na+ <130 mEq/L or symptomatic: Consider medication switch |
| Elevated Creatinine or Decreased eGFR | Lithium (chronic), pre existing renal disease | • Mild elevation: More frequent monitoring<br>• Progressive decline: Consider dose reduction or alternative medication<br>• Significant impairment: Nephrology consultation |

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|---|---|---|
| Hyperglycemia (Fasting glucose >126 mg/dL) | Antipsychotics (especially olanzapine, clozapine), mood stabilizers | • Prediabetes (100-125 mg/dL): Lifestyle modifications, more frequent monitoring<br>• Diabetes (>126 mg/dL): Consider medication switch, endocrinology referral |

| | | |
|---|---|---|
| Dyslipidemia | Antipsychotics, mood stabilizers | • Mild: Lifestyle modifications<br>• Moderate-severe: Consider medication switch, lipid-lowering therapy |
| Hypothyroidism (Elevated TSH) | Lithium, quetiapine | • Subclinical (TSH 4-10 mIU/L, normal T4): Monitor<br>• Clinical (TSH >10 mIU/L or low T4): Thyroid replacement therapy |

| | | |
|---|---|---|
| Hyperprolactinemia | Antipsychotics (especially risperidone, paliperidone) | • Asymptomatic: Monitor<br>• Symptomatic: Consider dose reduction, switch to prolactin-sparing antipsychotic, or add aripiprazole |

**Warning: Laboratory abnormalities must be interpreted in the context of the patient's clinical status. Asymptomatic laboratory abnormalities may require monitoring rather than immediate intervention, while even mild abnormalities with corresponding symptoms may require prompt action.**

***Clinical Pearl:*** *When managing medication-related laboratory abnormalities, consider the risk-benefit ratio of continuing the current treatment versus switching to an alternative. For patients who have responded well to a medication, careful monitoring and management of side effects may be preferable to switching medications, especially in treatment-resistant cases.*

***General Clinical Pearls for Medical Workup in Psychiatry:***

- *The extent of medical workup should be guided by the patient's age, clinical presentation, and risk factors*
- *New-onset psychiatric symptoms in patients without psychiatric history warrant more extensive medical evaluation*
- *Atypical features (unusual age of onset, visual hallucinations, fluctuating course, treatment resistance) should prompt consideration of medical causes* • *Laboratory monitoring should be tailored to the specific medication regimen*

*and individual patient risk factors*

- *Establish baseline values before starting medications to allow meaningful comparison during follow-up*
- *Document the rationale for ordering or deferring specific tests to support clinical decision-making*
- *Consider cost-effectiveness and patient burden when ordering tests; avoid unnecessary testing when clinical suspicion is low*

## References


Cabral, M. D. I., Liu, S., & Soares, N. (2020). Attention-deficit/hyperactivity disorder: diagnostic criteria, epidemiology, risk factors and evaluation in youth. *Translational Pediatrics*, *9*(S1), S104–S113. https://doi.org/10.21037/tp.2019.09.08

Culpepper, L. (2014). The Diagnosis and Treatment of Bipolar Disorder. *The Primary Care Companion for CNS Disorders*, *16*(3). https://doi.org/10.4088/pcc.13r01609

Ha, T., Prasanna Tadi, & Dubensky, L. (2019, November 22). *Neurosyphilis*. Nih.gov; StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK540979/

Janowsky, D. S., Buneviciute, J., Hu, Q., & Davis, J. M. (2011). Lithium-induced renal insufficiency: a longitudinal study of creatinine increases in intellectually disabled adults. *Journal of Clinical Psychopharmacology*, *31*(6), 769–773. https://doi.org/10.1097/JCP.0b013e31823607db

Khandanpour, N., Hoggard, N., & Connolly, D. J. A. (2013). The role of MRI and

CT of the brain in first episodes of psychosis. *Clinical Radiology*, *68*(3), 245–250. https://doi.org/10.1016/j.crad.2012.07.010

Legge, S. E., & Walters, J. T. (2019). Genetics of clozapine-associated neutropenia: recent advances, challenges and future perspective. *Pharmacogenomics*, *20*(4), 279–290. https://doi.org/10.2217/pgs-2018-0188

Stevens, A. (2023, July 14). *What are Some Common Psychiatric Lab Tests?* New Waters Recovery. https://newwatersrecovery.com/resource/common-psychiatric-lab-tests/

Telles-Correia, D., Barbosa, A., Cortez-Pinto, H., Campos, C., Rocha, N. B. F., & Machado, S. (2017). Psychotropic drugs and liver disease: A critical review of pharmacokinetics and liver toxicity. *World Journal of Gastrointestinal Pharmacology and Therapeutics*, *8*(1), 26. https://doi.org/10.4292/wjgpt.v8.i1.26

Tripathi, M., & Deepti Vibha. (2009). Reversible dementias. *Indian Journal of Psychiatry*, *51*(Suppl1), S52. https://pmc.ncbi.nlm.nih.gov/articles/PMC3038529/

Warren, A. E., Hamilton, R. M., Bélanger, S. A., Gray, C., Gow, R. M., Sanatani, S., Côté, J-M., Lougheed, J., LeBlanc, J., Martin, S., Miles, B., Mitchell, C., Gorman, D. A., Weiss, M., & Schachar, R. (2009). Cardiac risk assessment before the use of stimulant medications in children and youth: A joint position statement by the Canadian Paediatric Society, the Canadian Cardiovascular Society, and the Canadian Academy of Child and Adolescent Psychiatry. *Canadian Journal of Cardiology*, *25*(11), 625–630. https://doi.org/10.1016/s0828-282x(09)70157-6