MANAGEMENT OF MAJOR DEPRESSIVE DISORDER

Federal Bureau of Prisons

Clinical Guidance

MAY 2014
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WHAT'S NEW IN THIS DOCUMENT?

NOTE: The formatting of this document was updated in October 2017.

Revisions to the 2009 BOP Clinical Practice Guidelines for *Management of Major Depressive Disorder* include the following:

- The guidance has been revised to be in line with the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)* that was released in May 2013 *by the* American Psychiatric Association (APA). Accordingly, the following sections of the 2009 version of these guidelines have been deleted:
  - Appendix 1, DSM-IV-TR Criteria for Major Depressive Episode
  - Appendix 2, DSM-IV-TR Criteria for Major Depressive Disorder
- The DSM-5 criteria have been changed, and the DSM is now copyrighted. Readers are referred to the DSM website at *http://www.dsm5.org/Pages/Default.aspx*.
- Changes were made in accordance with the *Practice Guideline for Treatment of Patients with Major Depressive Disorder*, *Third Edition*, issued in 2010 by the APA, and available as a PDF at: *https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/mdd.pdf*
- Additional updates were made as a result of a review by BOP psychiatry and pharmacy staff.

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1. PURPOSE

The Federal Bureau of Prisons (BOP) Clinical Guidance for the *Management of Major Depressive Disorder* provides recommendations for the management of depression in federal inmates.

➔ *This guidance does not include recommendations for the medical management of bipolar disorders, which requires other special treatment considerations.*

2. INTRODUCTION

Depressive disorders are one of the most common medical conditions seen in the primary care setting. Major depression affects between 5–10% of all patients, disproportionately affecting women and the elderly. The causes of depressive disorders are unknown, but risk factors include: genetic factors, stress, bereavement, comorbid medical and psychiatric illnesses, certain medications, substance abuse, intoxication or withdrawal, cognitive impairment or brain injury, and a history of childhood trauma.

Despite the availability of highly effective treatments, depressive disorders are frequently underdiagnosed and undertreated—resulting in unnecessary patient suffering, lost productivity, and a marked increase in the cost of medical care. The direct and indirect health care costs associated with the management of depression are greater than for all other medical conditions except ischemic heart disease.

- **The diagnosis of depression should be considered for inmates who repeatedly present with unexplained somatic symptoms.** As many as half of all primary care visits are for psychiatric conditions that present as medical complaints—such as pain without significant organic cause, fatigue, dizziness, and sleep problems.
- **Depression should also be considered for inmates who present with certain psychiatric and medical conditions that are frequently associated with depression.** Up to 62% of depressed patients suffer from another mental disorder, most often some type of anxiety disorder. Conversely, up to 70% of patients with anxiety disorders suffer from a depressive disorder.

  Comorbid conditions associated with depression also include: substance use disorders, somatoform disorders, personality disorders, schizophrenia, and dementia, as well as medical conditions such as thyroid disease, cardiac disease (particularly after bypass surgery), nutritional disorders, cancer with and without paraneoplastic syndromes, HIV infection, connective tissue diseases, diseases of the hypothalamic-pituitary-adrenal axis, and neurologic diseases.
- **Depression can also be precipitated or exacerbated by certain medications**, including but not limited to steroids, narcotics, benzodiazepines, interferon, and reserpine.
- **At least 80–90% of patients with *major depressive disorder* can be brought into a full remission with appropriate medication or electroconvulsive treatment.** However, despite the availability of highly effective treatments, only 20% of all primary care patients who are diagnosed with a depressive disorder receive adequate treatment.

NATURAL HISTORY

Depressive disorders can develop at any age, from childhood through late adulthood. A fully developed major depressive disorder can evolve subacutely over days to weeks, or more slowly after a prodromal period of anxiety and mild depression that lasts for weeks to months. Between 50–85% of persons with a single episode of major depressive disorder will suffer another episode during their lifetime. Individuals who have suffered three or more episodes of major depressive disorder within a five-year period have a greater than 90% chance of recurrence.

For the majority of patients, depressive disorders should be thought of as chronic illnesses requiring regular reassessment for signs and symptoms of a recurrence, long-term follow-up, and in many cases, lifetime treatment. An untreated episode of depression frequently lasts six months or longer. Although spontaneous remissions may be full or partial, many untreated depressed persons remain intermittently symptomatic for several years, and a small subset of patients remain chronically ill. Patients with untreated depression are more likely to commit suicide, and they are more likely to suffer complications of comorbid medical conditions since they are less likely to be compliant with recommended treatments or engage in appropriate self-care activities.

SPECIAL CONSIDERATIONS

- **STIGMA** can be a major barrier to the expedient diagnosis and treatment of mental disorders and may be particularly important within the institutional environment. Inmates on psychiatric medications often must attend pill line, where they may be observed by other inmates and consequently labeled as "crazy" or viewed in a derogatory manner.
- **CULTURAL FACTORS** can have a significant influence on access to adequate treatment for mental disorders. Ethnicity and cultural norms can affect the expression of psychiatric symptoms and the inmate's acceptance of his or her illness. Health care providers may also suffer from the misconception that inmates of certain ethnicities are less likely to have certain mental health conditions. Language barriers can increase these misunderstandings and further complicate diagnosis and treatment.
- **ELDERLY INDIVIDUALS** have a higher rate of depression than younger adults and, while less likely to complain of depressive symptoms, the elderly are much more likely to suffer significant morbidity and mortality. Providers are more likely to ascribe depressive symptoms to the consequences of aging rather than to a mental health condition. The elderly have a higher rate of death by suicide than younger adults, yet many providers believe suicidal thinking and morbid preoccupation is normal in this age group. Depressive symptoms in the elderly may herald the onset of dementia.
- **WOMEN** are up to twice more likely to suffer from depressive disorders than are men. However, men are more likely to die by suicide. Women are more likely to suffer comorbid anxiety disorders, while men are more likely to suffer comorbid substance use disorders.
- **POSTPARTUM DEPRESSION:** The postpartum period is a high-risk period for the development of depression, especially in women with a history of a mood disorder. Women suffering from postpartum depression may experience profound guilt and shame and be reluctant to report symptoms of depression to their health care provider. Postpartum depression is especially severe when it is associated with psychotic symptoms, which may include delusions about the

infant and homicidal hallucinations or impulses. The presence of any depression in the postpartum period can profoundly affect the mother-infant bond and other parenting tasks.

- **PERSONALITY DISORDERS:** Persons with personality disorders are more likely to develop a depressive disorder; they have greater problems with impulse control, thereby increasing their risk of self-harm or harm towards others.
- **SUBSTANCE USE DISORDERS** can cause symptoms consistent with any of the depressive disorders. In the great majority of cases, such symptoms resolve with abstinence; however, a significant minority of inmates will require treatment for their mood disorder in conjunction with substance abuse treatment. Some inmates with chronic addiction suffer from low-grade symptoms of withdrawal that may be difficult to distinguish from a primary depressive disorder. The efficacy of antidepressant treatment in these individuals is uncertain. The best approach is careful assessment, followed by treatment if the symptoms meet the criteria of a diagnosable depressive disorder. Approximately 25% of all people who die by suicide are intoxicated at the time of their death.
- **BRAIN INJURY, DEMENTIA, OR OTHER COGNITIVE IMPAIRMENT:** Cognitively impaired inmates are at increased risk for a number of psychiatric conditions with atypical presentations, which are frequently associated with behavioral disturbances. A careful evaluation, including attention to possible organic factors, is necessary in these inmates since they are unlikely to provide an accurate history.

3. SCREENING

- **All inmates entering BOP facilities should be screened for mental health problems in accordance with Bureau policy.**
- **Additionally, nursing staff and clinicians should consider screening the following inmates for depression** during subsequent health encounters such as sick call, chronic care clinics, and inmate interviews in segregated housing units:
  - Inmates with unexplained medical conditions or complaints
  - Inmates with chronic pain
  - Inmates with a personal history of depression and suicide attempts, or a family history of depression or suicide
  - Inmates who display or verbalize any of the diagnostic criteria for major depressive disorder

SCREENING QUESTIONS

Simple screening methods have proven highly sensitive for detecting depression in the primary health care setting. *Even so, a negative screening interview does not necessarily rule out the presence of a depressive disorder.* Screening can be effectively accomplished by asking the questions listed below in **TABLE 1**. Positive findings for two or more core diagnostic symptoms are particularly sensitive for screening for depression.

TABLE 1. SCREENING QUESTIONS FOR DEPRESSION

DIAGNOSTIC SYMPTOMS	QUESTIONS*
Sleep disturbance	**1.** "Do you have trouble falling asleep? Are you sleeping too much or waking up too early?"
Low self-esteem	**2.** "Do you feel that you are a bad person, or that you have failed or have let people down?"
Decreased appetite	**3.** "Have you lost your appetite or found that you are not interested in eating?"
Anhedonia (*inability to experience pleasure*)	**4.** "Does it seem that you have lost interest in most things or that you no longer take pleasure in activities that you normally find pleasurable?"

***** *Inmates with positive responses to any two of the four screening questions, or who otherwise confirm other significant diagnostic criteria for depression during the screening process, should be further evaluated.*

FURTHER SCREENING METHODS

More comprehensive screening methods, based on DSM-5 criteria for major depression, are indicated on a case-by-case basis, especially for inmates with multiple comorbid medical conditions, for inmates with histories of drug-seeking behaviors, for inmates who are poor historians or present with significant cultural or language barriers, and when otherwise clinically indicated.

4. DIAGNOSIS

The diagnosis of depression is made through a clinical interview, in conjunction with a physical examination and laboratory assessment to screen for comorbid conditions. In some cases, the evaluation process may also include radiologic studies, such as an MRI of the brain, and psychological testing.

➔ *The DSM-5 criteria and guidance for major depressive disorder are available at the DSM website: http://www.dsm5.org/Pages/Default.aspx.*

DEPRESSION: THREE LEVELS OF SEVERITY

Major depressive disorder can be characterized in terms of the following three levels of severity:

- **MILD DEPRESSION:** Few, if any, symptoms in excess of those required to make the diagnosis are present, the intensity of the symptoms is distressing but manageable, and the symptoms result in minor impairment in social or occupational functioning.
- **MODERATE DEPRESSION:** The number of symptoms, intensity of symptoms, and/or functional impairment are between those specified for "mild" and "severe."
- **SEVERE DEPRESSION:** The number of symptoms is substantially in excess of that required to make the diagnosis, the intensity of the symptoms is seriously distressing and unmanageable, and the symptoms markedly interfere with social and occupational functioning.

CLINICAL INTERVIEW AND DOCUMENTATION OF RISK ASSESSMENT

The inmate interview may be structured or unstructured, but should address the presence or absence of symptoms of a major depressive episode or disorder. The assessment and documentation of the risk of suicide and/or the risk of harming others is a crucial part of the clinical interview for inmates with suspected or known depression.

➔ *The clinician should not worry that such questioning will produce or provoke suicidal or violent behavior.*

To evaluate the risk of suicide, the clinician should specifically ask the inmate the questions listed below in TABLE 2.

TABLE 2. SCREENING QUESTIONS FOR RISK OF SUICIDE

1. **"Do you ever feel so bad that you wish you were dead?"**
   Regardless of the answer, ask the next question:
2. **"Do you ever think of hurting yourself or taking your own life?"**
   If the answer is yes, follow-up by asking:
3. **"Do you currently have a plan?"**
   If the answer is yes, then ask:
4. **"What is your plan?"**

➔ ***If suicidal ideation is present: Contact Psychology Services immediately and keep the inmate under constant visual surveillance.***

More generally, the CLINICAL INTERVIEW AND RISK ASSESSMENT should include any past psychiatric history, a medical history and review of symptoms, and a family history, as discussed below:

- **PAST PSYCHIATRIC HISTORY** should be assessed, including symptoms, suicidal or violent behaviors, hospitalizations, diagnoses, and treatment interventions. A past history of manic episodes signals the presence of a bipolar disorder requiring specific treatment considerations.

- **MEDICAL HISTORY AND REVIEW OF SYMPTOMS** should include screening for comorbid medical conditions, as well as medications that may be the cause of the depressive symptoms.

  ➔ *See Appendix 1, Pharmacologic/Toxic Agents That Can Cause or Exacerbate Depressive Symptoms.*

  The inmate's adherence to prescribed treatments for medical conditions should also be assessed, since depressed inmates are more likely to be noncompliant and suffer related complications.

- **FAMILY HISTORY** should be investigated during the interview. Clinicians should inquire about any diagnosable mental conditions and related treatments among family members, since this information is helpful for diagnostic and treatment decisions for the inmate. Inmates with a family history of suicide, homicide, or other violence are at a higher risk for similar behaviors.

A complete risk assessment covers the factors listed in TABLE 3 below.

➔ ***These factors should be reviewed and documented for all inmates with depression, until their symptoms have completely abated****, since some inmates are more likely to act on suicidal thoughts during the early phase of recovery than during the acute phase of the disease.*

TABLE 3. RISK FACTORS FOR SUICIDE OR VIOLENCE TOWARDS OTHERS

The presence of the following factors may indicate an increased risk of suicide or violence towards others. ***These factors should be reviewed and documented for all inmates with depression—until their symptoms have completely abated.***
☑ Past history of acts of harm towards self or others
☑ Presence of thoughts of harm towards self or others
☑ Presence of a plan to harm self or others, including: ► Lethality of the plan ► Presence of means to carry out the plan ► Presence of intent to carry out the plan
☑ Family history of suicide or violence
☑ Presence of psychotic symptoms
☑ History of substance abuse
☑ Lack of support systems
☑ Recent severe stressor or loss
☑ Presence of comorbid personality disorder or anxiety disorder
☑ Poor institutional adjustment (including prolonged SHU placement, PC status, and poor cooperation and compliance with treatment)

PHYSICAL EXAMINATION AND LABORATORY ASSESSMENT

PHYSICAL EXAMINATIONS should include a brief neurologic examination. The examination should follow up on the findings from the clinical interview and be used to rule out specific medical and neurological conditions that may be complicating or causing the depressive symptoms.

➔ *See Appendix 2, Medical Conditions Associated with Depression.*

LABORATORY EVALUATION should be patient-specific, based on potential comorbid medical conditions and diagnostic concerns. The following baseline studies should be obtained, unless they were already obtained during the past year:

- Complete blood count and differential
- Comprehensive chemistry panel
- TSH

ADDITIONAL STUDIES should be obtained, as medically indicated *(list continues on next page)*:

- Drug levels of medications such as digoxin, theophylline, and anti-seizure medications.
- B-12 and folate levels for inmates with risk factors for deficiencies, including: the elderly, HIV seropositive inmates, inmates with a history of gastrointestinal disorders or surgery, vegetarians, alcoholics, inmates with a history of malnutrition or homelessness, inmates with autoimmune disorders, or inmates on medications known to cause deficiencies such as methotrexate.

- Electrocardiogram in individuals with cardiac risk factors or individuals over 50 years of age who are receiving tricyclic antidepressants or lithium.
- MRI of the brain when a neurologic disorder is suspected or in inmates who are refractory to treatment.
- EEG in inmates with a history of seizures.
- Evaluations for autoimmune or connective tissue diseases, infection, or malignancy, when clinically indicated.

5. ELEMENTS OF SUCCESSFUL TREATMENT

The goal of treating depression is to achieve and maintain a complete clinical remission. As a multimodal process, the successful treatment plan for inmates with moderate to severe depression usually includes:

- A correct diagnosis
- Patient-clinician therapeutic rapport
- Patient education about the disease and the recovery process
- Proper use of prescribed medications, with consideration for potential side effects
- Adjunctive psychological interventions
- Regular clinic follow-up appointments
- Monitoring of the inmate's compliance
- Regular assessment of the risk for self-harm and harm towards others (with appropriate interventions)

➔ ***Hospitalization (or inpatient medical referral center care) may be necessary if the inmate appears to be at risk of harm to self or others, or if his or her physical or medical condition warrants acute intervention.***

MEDICATIONS

Medications (along with electroconvulsive therapy [ECT], when specifically indicated) are the mainstays of treatment for severe or recurrent major depressive disorder. All current medication treatments for depressive disorders require weeks of therapy before a significant clinical response is achieved. During this period of waiting for a clinical response, inmates must continue to tolerate the painful symptomatology, while adhering to an inconvenient medication regimen (via pill line) that they may also find embarrassing.

- **COMPLIANCE:** To maximize inmate compliance, clinicians should simplify medication regimens whenever feasible. Utilize strategies that avoid multiple daily dosing, or utilize formulary medications that do not require pill line, e.g., fluoxetine.
- **TAPERING:** Clinicians should exercise caution with regard to tapering medications—up or down. Tapering of medications can lead to confusion, logistical issues with prescription fulfillment, and the potential for medication errors.

PSYCHOTHERAPY

Psychotherapy in the treatment of major depressive disorder is usually reserved as an *adjunctive therapy*, rather than as the sole therapeutic intervention (as it is used with mild depression).

➔ *See Section 6 for more specific information on the use of medications, ECT, and psychotherapy at each phase of treatment.*

PSYCHOLOGY REFERRAL

Good clinical practices include collaboration, when indicated, with Psychology Services. Psychology Services can provide adjunctive services (psychotherapy) and objective assessment data regarding the inmate's current symptoms, possible side effects of newly administered medication, and current and past levels of functioning. Consultation with a psychologist should be considered on a case-by-case basis, but should always occur for those inmates where suicidal ideation is present.

➔ ***If suicidal ideation is present: Contact Psychology Services immediately and keep the inmate under constant visual surveillance.***

PSYCHIATRIC REFERRAL

In general, BOP clinicians are expected to manage adjustment disorders with *mild to moderate* symptoms without psychiatric consultation, unless extenuating circumstances exist. However, treatment of *severe* depressive disorder should be initiated by a physician who is experienced in managing depression. Ongoing management of inmates with major depressive disorder does not always require psychiatric expertise.

Consultation with a psychiatrist should be considered on a case-by-case basis, particularly for inmates with the following clinical conditions:

- Suicidal ideation, psychotic symptoms, catatonia, mania, severe functional decompensation, or other signs of severe depression.
- Refractory depression (meets criteria with more than decreased mood) after completing an adequate trial of medications.
- Already receiving psychotropic medications for another mental health condition.

INFORMED CONSENT

Informed consent must be obtained by the treating primary care provider prior to prescribing or administering any medical treatment for psychiatric conditions, including depression.

At a minimum, INFORMED CONSENT requires a review of the following:

- The diagnosis and recommended treatments, potential risks and benefits of the recommended treatments, and alternatives to the recommended treatments (including no treatment).
- The inmate's understanding of the information given.
- The inmate's competence to give informed consent.

Applicable BOP forms should be used in accordance with BOP policy to document informed consent. When informed consent cannot be obtained because the inmate refuses or lacks

competence to consent, court proceedings for involuntary hospitalization and treatment in accordance with BOP policy should be considered for inmates who suffer from a severe major depressive disorder, especially if they are at risk of harm to self or others. Informed consent sheets are available on BEMR and can be signed by the physician or the psychiatric MLP.

6. TREATMENT DURING ACUTE, CONTINUATION, AND MAINTENANCE PHASES

The treatment of major depressive disorder is divided into three distinctive therapeutic phases: the **ACUTE PHASE**, the **CONTINUATION PHASE**, and the **MAINTENANCE PHASE**, all discussed below.

ACUTE PHASE OF TREATMENT

During the acute phase of treatment, regular clinic appointments are needed at a sufficient frequency to address and monitor safety concerns, compliance issues, and drug side effects. The frequency (daily to every two weeks) and duration of evaluations should be determined on a case-by-case basis, depending on the severity of symptoms and comorbid medical conditions. The acute phase of treatment generally lasts 8–12 weeks, but may be extended in order to achieve a full remission.

➔ *There may be an increased risk of suicidal ideations and suicide in the early stage of treatment. Thus, inmates should be monitored closely for risk of self-harm during this stage.*

The ACUTE PHASE of treatment may include the following:

- **MEDICATIONS:** Medications are the primary treatment for inmates with moderate to severe depression. Selective serotonin reuptake inhibitors (SSRIs) are commonly the drugs of choice for treating moderate to severe depression without psychosis, since they have a low side-effect profile, are relatively safe in overdose, are easily administered, have little potential for abuse, and have proven efficacy.

  ➔ *See Section 7, for a more complete discussion of the medications used for depression.*

  ➔ *See also Appendix 3, Antidepressant Medications – Indications and Dosing, and Appendix 4, Side Effects of Antidepressant Medications.*

  If a medication requires titration, the drug dose should be slowly titrated upward over 1–2 weeks, or as the inmate's condition and tolerance of side effects allows. Once a therapeutic dose is achieved, clinical improvement can be expected over the next 4–6 weeks, with continued improvement anticipated over subsequent weeks.

  Inmates with depression complicated by psychotic symptoms may require combination drug therapy. An antipsychotic medication in combination with an SSRI is effective in 60–70% of patients, i.e., two-to-three times as effective as administering either type of medication alone for these patients. Psychotic inmates with depression are at increased risk for acts of harm towards self or others, and may require hospitalization or medical referral center admission in the early phase of treatment.

  There is actually very little support for a purely biological treatment of suicidal risk. With regard to suicidal ideation, the research so far shows that psychosocial interventions are more effective for treating suicidal ideation and behaviors. Regardless, if medications are to be

effective, they need to be administered reliably, and therapeutic doses must be present in the bloodstream. For inmates who have had recent suicidal ideation, it is strongly recommended that they have their medications administered via pill line, rather than self-carry, in order to monitor and ensure compliance.

➔ *Drug use history and side effects of medications are important considerations in the treatment of major depressive disorder in our population.*

- **ELECTROCONVULSIVE THERAPY (ECT):** ECT, administered in accordance with BOP policy, should be considered on a case-by-case basis for inmates suffering from a severe major depressive episode in which their health is compromised by severe functional impairment, or when psychotic symptoms or catatonic symptoms are present. ECT has a more rapid response rate than antidepressant medications and can be lifesaving for inmates who are refusing food and/or fluids.

- **PSYCHOTHERAPY:** Inmates acutely suffering from major depressive disorder should be referred to a mental health provider for psychotherapy if any of the following inmate-related factors are present—recent significant psychosocial stressors; interpersonal problems; comorbid psychiatric illnesses; poor compliance; or suicidal or homicidal ideation, plan, or intent. The type, intensity, and duration of the psychotherapy will vary depending on the skills of the provider and on the inmate's mental condition and personal preference. Interpersonal and cognitive-based psychotherapy (CBT) are effective interventions for treating mild depression. Cognitive behavior therapy has been shown to be quite helpful in severe or treatment-resistant depression, especially in working with feelings of hopelessness, suicidality, anhedonia, and low self-esteem.

  ➔ *Psychotherapy should be one of the principle treatment augmentations when possible because of the decreased risk of side effects for the inmate.*

- **AUGMENTATION:** If the inmate does not show significant response to treatment after 6–8 weeks of initial therapeutic interventions, a thorough review of relevant clinical concerns should be undertaken before adjusting the treatment regimen.

  ➔ *See Appendix 5, Depression Treatment Augmentation Strategies.*

  Whenever a change in the treatment regimen is undertaken, the inmate should be closely monitored, and consultation with a psychiatrist should be considered (unless done previously). If no further improvement is evident after an additional 6–8 weeks of therapy, a thorough re-evaluation by a psychiatrist is indicated to determine appropriate changes in the treatment regimen.

- **TRANSCRANIAL MAGNETIC STIMULATION (TMS):** TMS is now an FDA-approved treatment for refractory depression. However, evidence is currently insufficient to recommend its routine use in the BOP.

- **VAGUS NERVE STIMULATION (VNS):** VNS is an FDA-approved treatment for refractory depression. VNS uses an implanted stimulator that sends electric impulses to the left vagus nerve in the neck, via a lead wire implanted under the skin. VNS is not currently recommended as a part of routine clinical practice in the BOP.

CONTINUATION PHASE OF TREATMENT

The continuation phase of treatment begins only after the inmate has achieved a full remission from depression. The continuation phase usually lasts 16–20 weeks beyond the ***ACUTE PHASE of treatment*** (described above) but may need to be extended, depending on the inmate's symptomatology and risk factors for relapse. Ongoing treatment and monitoring during the continuation phase are essential to prevent relapse. Because of the high risk of relapse in the first two years following an episode of major depression, strong consideration should be given to moving the inmate into the ***MAINTENANCE PHASE of treatment*** (described below) after completion of the continuation phase.

The CONTINUATION PHASE of treatment may include the following:

- **MEDICATIONS:** During the continuation phase, antidepressant medications should be continued at the same dose that was used in the acute phase.
- **ECT:** The indications for maintaining ECT during the continuation phase are poorly defined; for inmates who responded to ECT during the acute phase, ECT is generally continued, but at a reduced frequency.
- **PSYCHOTHERAPY:** Psychotherapy can also be an effective treatment modality during the continuation phase; however, the optimal frequency and length of psychotherapy necessary to maintain clinical improvement is uncertain.

Clinician evaluations every 2–3 months are usually sufficient for monitoring stable inmates during the continuation phase of treatment. Clinicians should assess inmates for the recurrence of depressive symptoms, adherence to recommended treatments, drug side effects, and treatment efficacy. Counseling efforts should focus on educating the inmate on the signs and symptoms associated with relapse, the importance of early intervention if symptoms return, and the appropriate use of medication or other treatments. Continued compliance with antidepressant medication should be stressed during this phase.

MAINTENANCE PHASE OF TREATMENT

Long-term chronic care management of inmates with major depression depends on the specific needs of the inmate. The goal of maintenance therapy is to prevent recurrent major depressive episodes, primarily through the continuation of somatic treatments. Many inmates in full remission after their first episode of a moderate major depressive illness will not require ongoing treatment beyond the continuation phase. However, 50–85% of inmates who have had a single episode of major depression will experience further episodes. **Therefore, maintenance treatment should be given strong consideration for high-risk inmates with any of the following:**

- History of severe symptoms or severe functional impairment
- History of suicidal or homicidal ideation, plan, intent, or behavior
- History of psychotic or catatonic symptoms
- Presence of residual symptoms or functional limitations
- Presence of significant psychosocial stressors
- Comorbid psychiatric disorders such as dysthymia, substance use disorder, anxiety disorder, or personality disorder

Other factors to consider in determining whether to place an inmate on maintenance treatment include occurrence of drug side effects during the continuation phase and inmate preference.

The MAINTENANCE PHASE of treatment may include the following:

- **MEDICATIONS:** If a decision is made to continue medication during the maintenance phase, the recommended dosage is the same as was prescribed for the acute and continuation phases. For inmates who were treated for just a single major depressive episode and are now stable, the duration of maintenance therapy should be individualized. Inmates with recurrent episodes of major depression will ordinarily require long-term maintenance therapy. Inmates with a history of three or more episodes in a five-year period have a greater than 90% chance of recurrence and probably require lifelong treatment.
- **ECT:** If the inmate has responded to ECT, this treatment can be continued in the maintenance phase, usually on a monthly basis—although the frequency and duration of treatment necessary to maintain remission should be individualized.
- **PSYCHOTHERAPY:** No evidence supports the efficacy of continued psychotherapy in the maintenance phase; however, psychotherapy may be appropriate on a case-by-case basis and may be chronically necessary for inmates with a history of recurrent major depressive episodes.

DISCONTINUATION OF TREATMENT AND MONITORING FOR RELAPSE

The decision to discontinue medications and psychotherapeutic interventions should be individualized:

- When the decision is made to discontinue treatment, the inmate should have a clear understanding of the early signs and symptoms of relapse and the importance of seeking help as soon as possible. Early treatment while the inmate is still in partial remission may prevent unnecessary morbidity or suicide.
- Antidepressant withdrawal is usually mild, beginning within one week of stopping medications, and attenuating over time (generally, one day to three weeks). However, stopping medications abruptly—especially short-acting antidepressants—can provoke an uncomfortable antidepressant discontinuation syndrome that can mimic a depressive episode. The **FINISH** mnemonic highlights typical symptoms of the syndrome and facilitates rapid recognition:

  Flu-like symptoms
  Insomnia
  Nausea
  Imbalance
  Sensory disturbances
  Hyperarousal

- If the inmate was taking an antidepressant for at least 8 weeks and was compliant, the antidepressant should be tapered to discontinuation over approximately 4 weeks or longer. The exception to this recommendation is fluoxetine, which has a long half-life and does not require tapering. Paroxetine may need a longer taper in some individuals. Once the

medication has been completely discontinued, inmate follow-up and assessment every 2–3 months for the next 6–12 months is warranted.

- During the discontinuation process, the inmate should be monitored regularly for signs and symptoms of relapse. If a relapse does occur, the medication should be increased back to the dose that brought the inmate into remission. The inmate should be placed back into the **ACUTE PHASE** of treatment, followed by the **CONTINUATION PHASE**, and then should again be managed with **MAINTENANCE THERAPY**. Psychotherapeutic and ECT interventions should be reinstituted selectively, on a case-by-case basis, when managing inmates who have relapsed with recurrent depression.

7. MEDICATIONS

FACTORS TO CONSIDER

The following factors should be considered when selecting antidepressant medications:

- Previous response to medication by the inmate or a blood relative
- Side effect profile of the medication
- Potential drug-drug interactions
- Comorbid medical conditions of the inmate
- Inmate's preference
- Frequency of administration
- Formulary status

STEPWISE APPROACH

TABLE 4 below outlines a stepwise approach for treating depressive disorders with medication:

TABLE 4. STEPWISE APPROACH TO MEDICAL TREATMENT OF DEPRESSIVE DISORDERS

1	Inmate is diagnosed with major depressive disorder.
2	Give first-line treatment with a single-dose SSRI (initially fluoxetine).
3	If no response, maximize the dose and give adequate time (at least 4 weeks) for medication to be effective.
4	If no response, consider switching to another SSRI, an atypical antidepressant (such as bupropion, trazodone, or mirtazapine), or a TCA.
5	If no response, consider combination therapy with two medications not in the same class, or use the augmentation strategies listed in *Appendix 5*.
6	If no response, consider ECT.
➔	See *Appendix 3, Antidepressant Medication – Indications and Dosing*, which lists drug treatment options for depression, by class.

DRUG CLASSES, INDICATIONS, AND DOSING

Major categories of antidepressant medications include SSRIs, TCAs, MAOIs, and other classes of medications.

- **SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRIS)** are commonly the first-line drugs for treating depression. SSRIs are as effective as other antidepressants, and they have a side effect profile that is generally more favorable than the tricyclic antidepressants (TCAs) or monoamine oxidase inhibitors (MAOIs). Differences in overall efficacy among the SSRIs have not been demonstrated; therefore, the choice of medication should be based on other relevant clinical and practical factors.

  Shorter-acting SSRIs can cause a syndrome of tinnitus, vertigo, anxiety, and paresthesias when discontinued abruptly—a potential complication that should be considered when selecting medications. When taken in greater than recommended therapeutic doses, SSRIs are much less toxic than the tricyclic antidepressants (see *TCAs* below), and they are rarely fatal in overdose. SSRIs may potentiate *serotonin syndrome*, especially when combined with other medications. Inmates on SSRIs should be monitored for this potentially fatal condition. The measurement of drug levels is generally not useful for SSRIs.

- **TRICYCLIC ANTIDEPRESSANTS (TCAS)** can be abused for their anticholinergic and antihistaminic side effects. Compared to SSRIs, TCAs are far more toxic in higher than recommended therapeutic doses. Due to their cardiac effects. Tricyclic antidepressants should ordinarily be reserved for inmates who have a documented non-response to an adequate trial of another class of antidepressant medication. Due to the lethality of TCA overdose, it is recommended that clinicians order the administration of TCAs in either crushed or liquid form, and that TCAs be administered with careful observation of ingestion.

  TCAs have a low therapeutic margin. For this reason, blood levels should be monitored whenever the TCA dose is changed, or when other medications with potential drug interactions are added, discontinued, or changed in dosage. EKG monitoring should be obtained for inmates who are either over 50 years of age or at risk for cardiac complications.

  TCAs should not be used in inmates with underlying cardiac disease. Also, geriatric inmates or inmates with central nervous system compromise (such as mental retardation, stroke, or other brain-based problems) should ordinarily *not* be treated with TCAs because these inmates are especially susceptible to anticholinergic and antihistaminic side effects—even without underlying medical conditions. The side effect profile of tricyclics also makes them a poor choice for inmates with many other medical problems, e.g., diabetes, obesity, hypertension, prostatic enlargement, cognitive problems, or glaucoma.

- **SEROTONIN-NOREPINEPHRINE REUPTAKE INHIBITORS (SNRIS):** This class of antidepressants is typically used for depression, anxiety, and chronic pain. Drugs in this class include venlafaxine and duloxetine. Unlike SSRIs, SNRIs inhibit reuptake of *two* neurotransmitters—serotonin and norepinephrine. Side effects are similar to SSRIs and may also include an increase in blood pressure.

- **BUPROPION:** An atypical aminoketone derivative antidepressant with norepinephrine and dopamine effects, bupropion is approved for both depression and smoking cessation. Bupropion is associated with fewer sleep-related and sexual dysfunction side effects than

many other antidepressants, and is less likely to trigger mania in bipolar inmates. Bupropion is contraindicated in inmates with a seizure disorder or bulimia, or in inmates abruptly withdrawing from alcohol, barbiturates, or benzodiazepines. Bupropion should not be administered with an MAOI.

Because bupropion produces an amphetamine-like effect, it does have potential for abuse. As such, use and any signs of diversion should be monitored. Abuse of this medication may involve snorting or other means of fast absorption. A check on the inmate's use of amphetamines or stimulants is often telling in determining the reason the inmate is requesting bupropion. Stimulant abuse can be used as a relative contraindication for use in such inmates with only symptoms of major depressive disorder. Because of the high potential for abuse of bupropion in this population, it is advisable for this medication to be used only for treatment of depression in inmates who are clearly bipolar. It is not a good choice for comfort medication of sub-criteria inmates.

- **TRAZODONE:** An alpha-1 agonist medication, trazodone is another atypical antidepressant. Common side effects include sedation and orthostasis. Trazodone has also been known to induce priapism, and this needs to be discussed with the inmate before administration. Priapism, a rare condition that causes a persistent and often painful penile erection, is considered a medical emergency.

- **MIRTAZAPINE:** Mirtazapine is an atypical tetracyclic antidepressant. It is a potent histamine (H_1) receptor antagonist. Its most common side effects include orthostatic hypotension (due to alpha-1 adrenergic blocking activity), sedation, weight gain, and dry mouth.

- **MONOAMINE OXIDASE INHIBITORS (MAOIS)** present unique clinical challenges, and they should not be prescribed without considering the complications associated with this class of antidepressants. It is recommended that these medications be started in inmates only by psychiatrists and other practitioners experienced in managing the possible side effects. MAOIs are reserved for inmates who have been refractory to multiple adequate trials of other classes of medications; however, MAOIs are not inherently superior to other strategies for treatment-refractory inmates.

  Potential side effects of MAOIs are significant and include orthostatic hypotension, edema, weight gain, sexual dysfunction, headaches, insomnia, sedation, myoclonic jerks, paresthesias, and peripheral neuropathy. Drug interactions are a concern due to the potential for hypertensive crises and *serotonin syndrome*, both potentially fatal conditions. Food-drug interactions can also cause a hypertensive crisis if the inmate ingests foods containing large amounts of tyramine or other pressor amines.

  ➔ *See Appendix 6, Severe Drug-Drug Interactions with MAOIs.*

  ➔ *See Appendix 7, Foods to Avoid During Treatment with MAOIs.*

DRUG WASHOUT TIMES (WHEN CHANGING ANTIDEPRESSANT TREATMENT REGIMENS)

Switching drug treatment regimens requires the appropriate tapering of medications, and the timely initiation of an alternative drug regimen. Drug washout is critically important when MAOIs are used.

➔ *See Appendix 8, Drug Washout Times Between Antidepressant Trials.*

DRUG SIDE EFFECTS

Major side effect profiles of the various classes of antidepressants are enumerated in *Appendix 4*.

DRUG-DRUG INTERACTIONS

Drug-drug interactions are an important complicating factor in the treatment of depression. Some of these interactions are of minor significance and consist primarily of an increase in uncomfortable side effects. However, many drug-drug interactions can cause significant morbidity and may be life-threatening.

In particular, prescribers should be aware of the potential for antidepressants to induce liver enzymes and directly affect the blood levels of concurrently prescribed medications:

- SSRIs (especially fluoxetine) can alter the level of warfarin, increasing the prothrombin time; inmates on warfarin should have INR monitored at least weekly until stable.
- Carbamazepine decreases the plasma level of SSRIs.
- SSRIs increase the plasma level of carbamazepine, valproate, phenytoin, and tricyclic medications.
- When tricyclics are used with SSRIs, tricyclic blood levels should be monitored regularly until they are stable.
- SSRIs can increase the risk of bleeding by decreasing platelet aggregation. Inmates on SSRIs have a two-to-four-fold increased risk for developing a gastrointestinal bleed, which is equivalent to the risk associated with NSAID use. Concomitant therapy of an SSRI with an NSAID results in a three-to-twelve-fold increased risk of developing a GI bleed.

➔ ***Because of the many potential serious drug interactions with antidepressant medications, providers should consult with their pharmacist and other current resource materials when prescribing antidepressants to inmates who take other medications.***

8. TREATMENT DURING PREGNANCY

Pregnancy does not in and of itself preclude somatic treatment for depression. The decision to institute or continue medication or ECT in a pregnant inmate should be based on consideration of the ***potential risks of the treatment*** to the fetus and mother, and ***the potential risks of untreated depression*** such as significant impairment in the inmate's ability to parent, interference with other significant relationships, suicide, acts of harm towards others, inadequate weight gain and low birth weight of the baby, and poor self-care. Psychotherapy, when possible, does not expose the pregnancy or the inmate to the side effects of somatic treatment—and may be as effective as

medications in certain cases. Treatment decisions should be made with the inmate after a frank discussion about the risks and benefits. The inmate's primary physician and obstetrician should also be part of the decision process.

Tricyclics and SSRIs have not been shown to increase the risk of intrauterine death or major birth defects. However, one study of women who took fluoxetine during pregnancy showed an increase in the occurrence of three or more minor physical anomalies in the infants versus the comparison group, as well as an association with lower maternal weight gain and lower birth weight. A limited number of behavioral studies of children exposed to tricyclics or fluoxetine have not revealed any long-term effects on cognition, temperament, or behavior.

- **Antidepressant medications prescribed during pregnancy should be limited to those SSRIs that have been studied (fluoxetine and sertraline) and to nortriptyline**, the TCA that has the best known relationship between plasma levels and therapeutic effect. Blood levels in the mother should be monitored whenever tricyclics are prescribed.
- **Tapering antidepressants over the last few weeks of pregnancy should be considered**, since mild neonatal withdrawal syndromes have been seen in infants exposed to fluoxetine, paroxetine, sertraline, and tricyclics.
- **ECT can be an alternative safe and effective treatment for pregnant women.** In select cases, ECT is the treatment of choice for pregnant women, particularly those suffering from a major depressive episode with psychotic features.
- **Antidepressant medications should be reinstituted after delivery whenever feasible.** If the mother is breastfeeding, the risk of the mother's untreated depression should be weighed against the risks for the infant of the medication excreted in the breast milk.

9. INMATE EDUCATION

Inmates often view depression as a personal weakness, and they can be reluctant to discuss their feelings because of the stigma associated with a mental health problem. Clinicians, nursing staff, and social work staff can help alleviate the stress felt by inmates diagnosed with depression by emphasizing that depression is a common and highly treatable medical condition. Key concepts for group or individual educational efforts, as well as resources on depression, are enumerated in several appendices:

➔ *See Appendix 9, Frequently Asked Questions about Depression.*

➔ *See Appendices 10a and 10b, Inmate Education Program on Depression (Inmate Quiz and Answers).*

➔ *See Appendix 11, Resources on Depression.*

DEFINITIONS

Adjustment disorder with depressed mood is a disorder in which there is a significant disturbance in mood in response to identifiable stressors. The mood disturbance causes significant distress or impairment in functioning, in excess of what one would expect from the severity of the stressor. In this case, the inmate's evident signs and symptoms do not meet the criteria of other mood disorders or of bereavement.

Anhedonia is a loss of interest in or a loss of taking pleasure in all regular activities.

Atypical antidepressants are a group of antidepressant medications that are not included under the heading SSRIs, SNRIs, TCAs, or MAOIs. They include trazodone, mirtazapine, and bupropion.

Bereavement is a normal reaction to a significant loss and may resemble a depressive disorder in its symptomatology. A major depressive disorder is not diagnosed unless the symptoms persist for longer than two months, or are characterized by marked functional impairment, the presence of morbid preoccupation, suicidal ideation, psychotic symptoms, or marked psychomotor retardation.

Catatonic features can be present in severe mood disorders or psychotic disorders and consist of a marked disturbance of psychomotor activity, immobility, or agitation. Features include: extreme negativism, mutism, peculiarities of voluntary movement such as posturing or stereotypical movements, echolalia (senseless repetition of a word or phrase used by another person), echopraxia (repetitive imitation of movements of another person), catalepsy (waxy flexibility) or stupor, and purposeless excessive motor activity not influenced by external stimuli. Severe catatonic stupor or excitement can be associated with significant morbidity and mortality, including: dehydration, malnutrition, exhaustion, hyperpyrexia, self-inflicted injury, deep venous thrombosis, pulmonary emboli, autonomic instability, and decubiti.

Clinician is a physician or mid-level provider (MLP).

Delusions are disturbances of thought processes and are fixed, false beliefs that are very strongly held and immutable, even in the face of evidence to the contrary. Delusions can be simple, containing few elements, or they can be complex, encompassing virtually all of a person's reality. Delusions vary in type and include: delusions of persecution; delusions of grandeur; delusions of influence; delusions of having sinned; delusions of replacement of significant others; delusions with nihilistic, somatic, erotomanic, or jealous characteristics; and delusions about mood, perception, or memory.

Depressive disorders are a group of conditions delineated and defined in the *Diagnostic and Statistical Manual of Mental Disorders: Fifth Edition* (DSM-5) that have, as their major feature, a disturbance of mood that causes significant clinical distress or impairment in functioning. The mood disturbance may include any or all of the following: depression, sadness, irritability, and hopelessness.

Depressive disorder not otherwise specified is a mood disorder in which the criteria for more specific depressive disorders are not met (or there is inadequate information present), but where there is significant functional impairment or distress present.

Dysthymic disorder is a condition in which a depressed mood has been present more days than not, has lasted for at least two years, and has not been of a severity to meet the criteria for major depressive disorder.

Electroconvulsive therapy (ECT): ECT is a treatment in which seizures are electrically induced in an anesthetized inmate. ECT can be used for major depression, mania, catatonia, or schizophrenia. Initially ECT is administered in a course of 6–12 treatments, with a frequency of 2–3 times a week.

Hallucinations are a disturbance of perception and occur in the absence of corresponding sensory stimuli. They can include any of the sensory experiences, alone or in combination—auditory, visual, gustatory, olfactory, or tactile. Hallucinations can occur in a number of mental disorders, but they can also occur as a symptom of many medical/neurological conditions such as drug withdrawal, tumor, toxic disturbances, or inflammatory or infectious processes.

Major depressive disorder is characterized by one or more major depressive episodes, a specific mood disturbance in which there is the persistent presence of a pervasive, depressed, anhedonic or apathetic mood for at least two weeks and which is accompanied by significant distress or impairment in functioning. Additionally, four other symptoms—as outlined in DSM-5 criteria—must be present. These could include: change in appetite or weight; disturbance or change in sleep pattern; increased or decreased psychomotor activity; decreased energy; decreased concentration; indecisiveness; feelings of worthlessness or excessive guilt; morbid preoccupation; or suicidal thinking. In this case, the symptoms are not due to the direct effects of substances (alcohol or illicit drugs) or medications, or due to a general medical condition. Additionally, the symptoms are not better accounted for by bereavement.

Melancholic features are symptoms of a major depressive episode in which there is a loss of pleasure or interest in all or almost all activities, as well as the presence of at least three of the following: a depressed mood that shows diurnal variation (worse in the morning); early morning awakening; psychomotor retardation or agitation; anorexia (loss of appetite) or weight loss; or excessive or inappropriate guilt.

MAOIs are monoamine oxidase inhibitors, a category of antidepressant medications.

Psychotic features are symptoms of hallucinations or delusions that can be congruent or incongruent with the depressed mood. Psychotic features *always* indicate the presence of a severe mood disorder or episode.

SNRIs are serotonin-norepinephrine reuptake inhibitors, a category of antidepressant medications.

SSRIs are selective serotonin reuptake inhibitors, a category of antidepressant medications.

Serotonin syndrome is a rare, but potentially fatal, syndrome; it is due to excessive serotonergic activity that is usually associated with the use of multiple serotonergic agents such as SSRIs together with MAOIs, but it can occur with SSRIs alone. The syndrome can include abdominal pain, diarrhea, flushing, sweating, hyperthermia, lethargy, mental status changes, tremor, myoclonus, rhabdomyolysis, renal failure, cardiovascular shock, and possibly death.

Serotonin withdrawal syndrome is a phenomenon that has sometimes been observed with the abrupt discontinuation of certain SSRIs, particularly those with short half-lives. Symptoms can include: agitation, anxiety, panic attacks, depression, nausea, sweating, lethargy, sensory disturbances, sleep disturbance, and dizziness. Symptoms vary from mild to severe, and may require reinstitution of the medication followed by a gradual taper over several weeks.

Somatic treatments refer to the use of medications, electroconvulsive therapy (ECT), vagus nerve stimulation (VNS), or transcranial magnetic stimulation (TMS) in the treatment of depressive disorders.

Specifiers are terms used to better define the nature of the inmate's current or most recent mood disorder and includes descriptors of onset, severity, additional features or symptoms, level of recovery, or the presence of a seasonal component. **For example, all of the following terms can be used for specifying the nature of a current major depressive episode:** mild, moderate, severe without psychotic features, severe with psychotic features (mood-congruent or mood-incongruent), in partial remission, in full remission, chronic, with catatonic features, with melancholic features, with atypical features, with postpartum onset, and with seasonal pattern.

TCAs are tricyclic antidepressants, a category of antidepressant medications.

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APPENDIX 1: PHARMACOLOGIC/TOXIC AGENTS THAT CAN CAUSE OR EXACERBATE DEPRESSIVE SYMPTOMS

Category	Specific Agents That Can Cause/Exacerbate Depression
Anti-Cancer Agents	cycloserine, vincristine, vinblastine, others
Anti-Emetics	droperidol, metoclopramide, prochlorperazine, perphenazine
Anti-Inflammatories and Anti-Infectives	NSAIDs, sulfonamides
Cardiovascular	alpha-methyldopa, reserpine, propranolol, clonidine, guanethidine, thiazide diuretics, digoxin/digitoxin
Hormones	oral contraceptives, ACTH, glucocorticoids, anabolic steroids
Illicit Substances	all can cause or exacerbate depression during any phase of use, i.e., intoxication, chronic use, or withdrawal
Psychiatric Medications	benzodiazepines, sedatives/hypnotics, antipsychotics, dopamine-blocking antipsychotics (e.g., haloperidol), anticholinergics
Toxins	heavy metals, alcohol, thallium, anticholinesterase insecticides
Others	narcotics, cimetidine, ranitidine, baclofen, other muscle relaxants, ethambutol, disulfiram, alpha-interferon, glucocorticoids

APPENDIX 2: MEDICAL CONDITIONS ASSOCIATED WITH DEPRESSION

Category	Conditions That May Cause or Can Present as Depression
Cardiac Disease	Congestive heart failure Ischemic heart disease
Connective Tissue Disorders	Lupus erythematosus Mixed connective tissue disease Rheumatoid arthritis
Endocrine	Adrenal disease (Cushing's or Addison's disease) Diabetes Hyperparathyroidism Hypopituitarism Hypo- or hyperthyroidism
Infectious Diseases	Hepatitis HIV infection Infectious mononucleosis Pneumonia Tertiary syphilis Toxoplasmosis
Malignancies	Any, but especially abdominal or gastrointestinal Carcinomatosis Hematologic Paraneoplastic syndrome
Neurologic Disorders	CNS tumors Dementia Head injury Multiple sclerosis Parkinson's disease Seizure disorder Sleep disorders Stroke Subdural hematoma (chronic)
Nutritional Disorders	Excessive intake of B-6 B-12 or folate deficiency Niacin deficiency (pellagra) Thiamine deficiency
Miscellaneous	Anemia Asthma/COPD/emphysema Chronic pain syndromes Smoking cessation Any chronic illness

APPENDIX 3: ANTIDEPRESSANT MEDICATION – INDICATIONS AND DOSING

Class	Name	Indications*	Start Dose (mg) daily, unless noted otherwise	Usual Dose** (mg) daily, unless noted otherwise
Selective Serotonin Reuptake Inhibitor (SSRI)	citalopram escitalopram	D, A	20	20–60
	fluoxetine	D, d, A, OCD, E	10–20	20–60
	sertraline	D, d, A, OCD	25–50	75–200
Tricyclic Antidepressant (TCA)	amitriptyline desipramine doxepin imipramine	D, A	25–50	100–300***
	nortriptyline	D, A	10–25	50–200***
Selective Serotonin Norepinephrine Reuptake Inhibitor (SNRI)	duloxetine	D, d, A, OCD	30 per day (BID dosing in non-time release)	60–120 total daily dose (BID dosing in non-time release)
	venlafaxine	D, d, A, OCD	37.5–75 per day (BID dosing in non-time release)	75–225 total daily dose (BID dosing in non-time release)
Atypical Aminoketone Derivative	buproprion	D, D in Bipolar pts, ADD, ADHD, Sm	75 BID ***or*** 150 daily in time release	100 TID ***or*** 150 BID in time release
Atypical Triazolopyridine	trazodone	S, D	25–50	50–150 for S 150–300 for D
Atypical Tetracyclic	mirtazapine	D, S, A	7.5–15	7.5–45

*** Indications:**

A	Anxiety disorders other than OCD
ADD	Attention Deficit Disorder
ADHD	Attention Deficit Hyperactivity Disorder
d	Dysthymia
D	Depressive disorders
E	Eating disorder
OCD	Obsessive Compulsive Disorder
S	Sleep disturbance, insomnia
Sm	Smoking cessation

**** USUAL DOSE:** Severely depressed inmates may need higher doses. See *PDR* for indications. Elderly inmates may need lower doses (both the starting dose and the therapeutic dose).

***** USUAL DOSE FOR TCAS:** Blood levels vary as much as a factor of 10 among individuals. Blood levels should be checked during titration and once a steady state is reached. Nortriptyline has a definitive therapeutic window, with decreased effectiveness above or below this range.

APPENDIX 4: SIDE EFFECTS OF ANTIDEPRESSANT MEDICATIONS

Class	Examples	Side Effects*
Selective Serotonin Reuptake Inhibitor (SSRI)	citalopram escitalopram fluoxetine fluvoxamine paroxetine sertraline	Headache, nausea, flatulence, somnolence, insomnia, agitation, anxiety, weight loss or anorexia, weight gain, tremor, sexual dysfunction, myoclonus, restless legs, bruxism, akathisia, increased dreaming/nightmares, bradycardia, galactorrhea, paresthesias, mania, GI bleed
Tricyclic Antidepressant (TCA)	amitriptyline clomipramine desipramine doxepin imipramine nortriptyline protriptyline trimipramine	*Anticholinergic:* Dry mouth, constipation, urinary retention, blurred vision, dry eyes, sweating, confusion *Antihistaminic:* Weight gain, somnolence, nightmares, confusion *Other:* Cardiac arrhythmia, prolonged conduction time, orthostatic hypotension, seizures, tachycardia, tremor, sexual dysfunction, mania
Selective Serotonin Norepinephrine Reuptake Inhibitor (SNRI)	venlafaxine duloxetine desvenlafaxine	Headache, agitation, anxiety, insomnia, somnolence, dry mouth, sweating, urinary retention, constipation, increased blood pressure (dose-related), nausea, dizziness, tachycardia, orthostatic hypotension, sexual dysfunction, mania
Atypical Aminoketone Derivative	buproprion	Increased risk of seizures**, insomnia, anxiety, agitation, headache, tremor, myoclonus, tinnitus, palpitations ** *Do not use in inmates with eating disorders or seizure disorders, or those acutely withdrawing from alcohol, barbiturates, or benzodiazepines*
Atypical Triazolopyridine	trazodone	Somnolence, dizziness, tachycardia, orthostatic hypotension, priapism, nausea, dry mouth, mania
Atypical Tetracyclic	maprotiline mirtazapine	Same side effects as TCAs; Maprotiline associated with increased risk of seizures
Monoamine Oxidase Inhibitor (MAOI)	phenelzine tranylcypromine	Constipation, anorexia, weight gain, headache, anxiety, insomnia, somnolence, nausea, vomiting, dry mouth, urinary retention, sexual dysfunction, paresthesias, orthostatic hypotension, increased blood pressure, myoclonus, edema, electrolyte imbalance, mania
Dibenzoxazepine	amoxapine	Extrapyramidal side effects and all the same side effects as other typical antipsychotics, as well as TCAs Amoxapine can cause *tardive dyskinesia.*
***** For a complete list of side effects, consult the *PDR*.		

APPENDIX 5: DEPRESSION TREATMENT AUGMENTATION STRATEGIES

A thorough treatment reassessment should occur if an inmate being treated for depression does not show a significant response after 6–8 weeks of acute phase therapy.

RE-ASSESSMENT

Prior to altering therapy, follow steps 1–9:

1	Thoroughly review presentation, symptoms, and diagnosis; consider another cause for the inmate's depressive symptoms.
2	Evaluate for the possibility of a complicating medical condition or illness not yet diagnosed, e.g. an autoimmune disorder, infectious process, B-12 deficiency, etc.
3	Review compliance with the inmate and pharmacy (pill line attendance via MAR forms; refills of SSRIs) Nonadherence is the most likely cause of poor response to treatment.
4	Ensure that the medication dose and trial period have been adequate.
5	Check blood levels for medications that have known therapeutic levels or when the inmate's compliance is in doubt.
6	Consider drug-drug interactions that may be lowering the plasma level of the antidepressant.
7	Consider active substance abuse on the part of the inmate.
8	Review with the inmate possible ongoing or new significant sources of stress that may be affecting the inmate's functioning.
9	Consider consultation for a second opinion.

TREATMENT OPTIONS

If the above steps yield no specific answer for the lack of response, adjusting the treatment regimen is reasonable. Consider the following options in this order:

1	Increase the dose of current medication.
2	Switch to another medication (different SSRIs may have different efficacy in individual inmates).
3	Add another antidepressant to the medication, e.g., add low-dose TCA to SSRI, but monitor the blood level of TCA.
4	Add triiodothyronine, 25–50 micrograms per day. If there is no improvement after 3 weeks, discontinue.
5	Add lithium. Blood levels of 0.5–0.8 mEq/L of lithium are usually sufficient for treating depression that is not complicated by a bipolar disorder. If no response is evident by 6 weeks, discontinue.
6	Add, change type of, or increase frequency or intensity of psychotherapy.
7	Use ECT.

MONITORING RESULTS

Wait 6–8 weeks (unless otherwise indicated) after treatment augmentation, while monitoring the inmate closely. If there is an incomplete or no response, repeat re-assessment steps 1–9 and then reconsider treatment options 1–7.

APPENDIX 6: SEVERE DRUG-DRUG INTERACTIONS WITH MAOIS

The following drugs are absolutely contraindicated for inmates taking MAIOs:*

Class	Example	Effect/Interaction
Anorexiants	defenfluramine fenfluramine	serotonin syndrome**
Antidepressants (See *Appendix 8* for washout periods.)	buproprion nefazodone mirtazapine SSRIs trazodone tricyclic antidepressants venlafaxine	serotonin syndrome**
Anti-migraine	sumatriptan zolmatriptan	serotonin syndrome**
Herbs, supplements	L-tryptophan St. John's Wort	serotonin syndrome**
Narcotics	dextromethorphan diphenoxylate meperidine tramadol	encephalopathy, death, serotonin syndrome**
Sympathomimetics	amphetamines cocaine dopamine ephedrine methylphenidate phenylpropanolamine pseudoephedrine tyramine	hypertensive crisis
Other	anesthetic agents antihypertensives buspirone caffeine carbemazepine CNS depressants cyclobenzaprine	Various

* **Many other potential drug-drug interactions exist** and have been reported with MAOIs. Check with your pharmacist prior to adding MAOIs to any medications, or any medications to MAOIs. Over-the-counter medications—especially cold, hay fever, and sinus medications—can be dangerous and potentially life-threatening. Caution inmates on these issues.

** **Serotonin syndrome** is a rare, but potentially fatal, syndrome. It is due to excessive serotonergic activity that is usually associated with the use of multiple serotonergic agents such as SSRIs together with MAOIs, but it can occur with SSRIs alone. The syndrome can include abdominal pain, diarrhea, flushing, sweating, hyperthermia, lethargy, mental status changes, tremor, myoclonus, rhabdomyolysis, renal failure, cardiovascular shock, and possibly death.

APPENDIX 7: FOODS TO AVOID DURING TREATMENT WITH MAOIS*

AVOID THESE FOODS

Avoid food with very high tyramine content, such as:

- All matured or aged cheeses (e.g., cheddar, brick, blue, Gruyere, Stilton, brie, Swiss, Camembert, Parmesan, mozzarella)
- Broad beans (e.g., fava)
- Orange pulp
- Meat extract (e.g., Marmite, Bovril)
- Concentrated yeast extracts or yeast vitamin supplements
- Dried, salted, pickled, or smoked fish
- Sauerkraut
- Aged sausage (e.g., salami, pepperoni)
- Tap beer, Chianti, other beer and wine
- Chicken or beef liver
- Packaged soup
- Summer sausage

EAT THESE FOODS IN MODERATION

Eat in moderation (no more than 1–2 servings per day) foods that have moderately high tyramine content, or other foods for which reactions with MAOIs have been reported, such as:

- Soy sauce
- Sour cream, yogurt
- Meat tenderizers
- Caviar, snails
- Ripe bananas
- Caffeine
- Avocados
- Plums, raisins
- Chocolate
- Overripe fruit
- Chinese food
- Spinach
- Tomatoes

***** Adapted from *Clinical Handbook of Psychotropic Drugs* (see *References* section)

APPENDIX 8: DRUG WASHOUT TIMES BETWEEN ANTIDEPRESSANT TRIALS

Antidepressant Change		Minimum Washout Period
From …	**To…**	
SSRI	SNRI, mirtazapine, bupropion	2–5 days (*RECOMMENDED*)*****
SSRI, SNRI, mirtazapine, bupropion	SSRI	2–5 days (*RECOMMENDED*)*****
SSRI, SNRI, mirtazapine, bupropion	TCA	1–2 weeks, depending on half-life of SSRI & its active metabolites (*RECOMMENDED*)*****
TCA	TCA	None
TCA	SSRI, SNRI, mirtazapine, bupropion	5–7 days (*RECOMMENDED*)*****
Drug with short half-life metabolites (e.g., paroxetine, fluvoxamine, venlafaxine, TCA)	MAOI	2 weeks (*REQUIRED*)
Drug with long half-life metabolites (e.g., fluoxetine)	MAOI	5 weeks (*REQUIRED*)
MAOI	MAOI	2 weeks (*REQUIRED*)
MAOI	Non-MAOI	2 weeks (*REQUIRED*)

* *In these cases, an absolute washout of the previous medication is not necessary prior to instituting the new medication. The first medication may be tapered down as the new medication is gradually tapered upwards, so long as you remain cognizant of potential drug-drug interactions and the medications' half-lives and active metabolites.*

APPENDIX 9: FREQUENTLY ASKED QUESTIONS ABOUT DEPRESSION

WHAT IS DEPRESSION?

Depression is a very common medical condition that affects nearly 10% of all Americans. Depression is not the same as a passing blue mood or a sign of personal weakness. People with a depressive illness can't just "pull themselves together" to get better.

- **Depression is an illness**, and it can have a profound effect on a person's thoughts, feelings, behavior, and physical health. It often interferes with normal activities such as eating and sleeping.
- **Depressive illnesses cause pain and suffering** not only to those who have the disorder, but also to the people who care about them.
- **Depression, if not treated, can be serious.** Up to 70% of the people who commit suicide may have some form of depression.

Like many other illnesses, depressive disorders come in different forms. For some people, depression occurs as a one-time event. Others may experience repeated episodes of depression mixed with "normal" periods. There are also people for whom depression is a chronic condition that requires lifelong care.

WHAT CAUSES DEPRESSION?

There is no single cause for depression. Experts believe that depression may be caused by an imbalance in the brain chemicals called "neurotransmitters." Sometimes a stressful event in a person's life will trigger depression. Other times, depression seems to occur spontaneously, where it is hard to identify any specific cause.

Certain factors can contribute to depression:

- **Heredity:** Depression often "runs" in families.
- **Stress:** Stressful experiences, especially the loss of a loved one or a job, can cause depression.
- **Medications:** Depression can be caused by long-term use of certain medications such as some medicines for high blood pressure, sleeping pills, and (occasionally) birth control pills.
- **Illnesses:** Having a chronic illness such as heart disease, diabetes, or cancer—or having had a stroke—puts a person at a higher risk for developing depression.
- **Personality:** Certain personality traits can make a person more vulnerable to depression. For example, a person with low self-esteem or who is overly dependent, self-critical, pessimistic, or easily overwhelmed by stress may be more prone to depression.
- **Alcohol, nicotine, and drugs:** Studies show that using these substances can cause or worsen depression and anxiety disorders.

WHAT ARE THE SYMPTOMS OF DEPRESSION?

Symptoms that "signal" depression are:

- Loss of interest in normal daily activities
- Depressed mood
- Feelings of sadness, helplessness, and hopelessness—often with crying spells

Other symptoms of depression may include:

- Sleep disturbances such as insomnia or sleeping a lot
- Significant weight loss or weight gain
- Decreased interest in sex
- Agitation, or slowing of body movements
- Irritability and easily feeling annoyed
- Fatigue
- Low self-esteem
- Thoughts of death
- Impaired thinking or concentration. For example—having trouble making decisions, being unable to concentrate, having problems with memory, or feeling that life is in slow motion.

Many people with depression also have symptoms of anxiety. Anxiety that develops after age 40 is often related to depression, rather than being a separate problem.

Depression can also contribute to other health problems such as itching, blurred vision, excessive sweating, dry mouth, gastrointestinal problems (indigestion, constipation, or diarrhea), headaches, and backaches.

HOW IS DEPRESSION DIAGNOSED?

A doctor determines whether a person has depression by:

- Giving the inmate a physical examination
- Doing certain medical tests to rule out other conditions that can cause the same symptoms as depression
- Asking the inmate a number of health-related and other questions:
  - When did the symptoms start? How long have they lasted? How severe are they? Have you had them before? If so, were the symptoms treated and how?
  - Do you use alcohol or drugs?
  - Do you have thoughts of death or suicide?
  - Have other members of your family had a depressive illness?

(FAQs about Depression, page 2 of 3)

HOW IS DEPRESSION TREATED?

Treatment choices depend on the results of the doctor's evaluation. If the doctor sees signs of severe depression in the inmate, or suspects that suicide is a possibility, he or she may refer the inmate to a psychiatrist (a medical doctor who specializes in mental illness). In some cases, the doctor may even recommend that the inmate be hospitalized immediately.

Some people with milder forms of depression may only need counseling. Others who have moderate-to-severe depression often benefit from a combination of medication and counseling. They would receive an antidepressant medication to relieve the symptoms, and counseling to help them learn better ways to deal with their problems and with depression itself.

Once you begin treatment for depression:

- **See your health care provider regularly** so he or she can monitor your progress, give you support and encouragement, and adjust your medications as necessary.
- **Take your medications *exactly* as your doctor has instructed.** Many inmates do not feel better until 4–8 weeks after beginning their medications, *so try to be patient*.
- **Don't isolate yourself.** Participate in your normal activities.
- **Join a depression support group** if one is available.
- **Take care of yourself.** Eat a healthy diet and get the right amount of sleep and exercise.
- **Don't abuse alcohol or illegal drugs**; they will slow your recovery.
- **Accept support** from your family and friends.

(FAQs about Depression, page 3 of 3)

APPENDIX 10A: INMATE EDUCATION ON DEPRESSION (INMATE QUIZ)

TRUE OR FALSE?

1. Depression is a medical condition.
☐ True ☐ False

2. Depression affects people's thoughts, moods, and feelings, but NOT their behavior or physical health.
☐ True ☐ False

3. A depressive disorder is the same as a passing blue mood.
☐ True ☐ False

4. Losing interest in normal activities is a key symptom of depression.
☐ True ☐ False

5. Depressive disorders are pretty much the same for everyone who gets them.
☐ True ☐ False

6. There is no single cause for depression.
☐ True ☐ False

7. Stressful events are upsetting, but cannot trigger depression.
☐ True ☐ False

8. Drinking alcohol can help a depressed person.
☐ True ☐ False

9. Having trouble falling asleep or losing your appetite can sometimes be signs of depression.
☐ True ☐ False

10. Many people with depression also have symptoms of anxiety.
☐ True ☐ False

11. Most people with severe forms of depression can get better with just counseling alone.
☐ True ☐ False

12. Once a person has started treatment for depression, it's not necessary to pay attention to it on a day-to-day basis.
☐ True ☐ False

APPENDIX 10B: INMATE EDUCATION ON DEPRESSION (ANSWERS TO QUIZ)

1. **TRUE.** Depression is a brain disorder, a medical condition that has a biological basis.

2. **FALSE.** Depression is a brain disorder that affects thoughts, moods, and feelings—as well as behavior and physical health. Depressive illness often interferes with a person's normal activities, such as eating and sleeping, and can cause physical pain and suffering.

3. **FALSE.** A depressive disorder is not the same as a passing blue mood. People with a depressive illness cannot merely "pull themselves together" and get better. They usually need professional help.

4. **TRUE.** Losing interest in normal daily activities, especially ones you usually enjoy, and feeling sad or hopeless much of the time are two key symptoms of depression, and should be reported to your health care practitioner.

5. **FALSE.** Depressive disorders come in different forms. Depression may occur as a one-time episode, as repeated episodes intermixed with periods that are free of depression, or as a chronic condition that requires lifelong care.

6. **TRUE.** There is no single cause for depression. Experts believe that depression may be caused by imbalances in brain chemicals called neurotransmitters. There are a number of different factors that can "trigger" depression.

7. **FALSE.** Stressful life events, particularly the loss—or threatened loss—of a loved one or job can trigger depression.

8. **FALSE.** Studies show that using alcohol, nicotine, or drugs may actually contribute to depression and anxiety disorders.

9. **TRUE.** Trouble falling asleep (or sleeping too much or waking up too early), loss of appetite, and feeling bad about yourself can all be signs of depression and should be reported to your health care practitioner.

10. **TRUE.** Many people with depression have symptoms of anxiety, as well. Anxiety that develops after age 40 is often related to depression.

11. **FALSE.** Some people with milder forms of depression may do well with psychotherapy or counseling alone. However, people with moderate to severe depression usually get more benefit from a combination of antidepressant medications and counseling.

12. **FALSE.** Once treatment for depression begins, the inmate's condition still has to be managed on a day-to-day basis.

APPENDIX 11: RESOURCES ON DEPRESSION

NATIONAL INSTITUTE OF MENTAL HEALTH
Information Resources and Inquiries Branch
6001 Executive Boulevard
Room 8184, MSC 9663
Bethesda, MD 20892-9663

Depression brochures: 1-800-421-4211
http://www.nimh.nih.gov

NATIONAL ALLIANCE FOR THE MENTALLY ILL
2107 Wilson Boulevard, Suite 300
Arlington, VA 22201-3042

1-800-950-NAMI
http://www.nami.org

NATIONAL DEPRESSIVE AND MANIC DEPRESSIVE ASSOCIATION
730 N. Franklin, Suite 501
Chicago, IL 60601

1-800-826-3632
http://www.ndmda.org

NATIONAL MENTAL HEALTH ASSOCIATION
1021 Prince Street
Alexandria, VA 22314-2971

1-800-969-6642
http://www.nmha.org