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# Depression in the Emergency Department

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# Introduction

Depression is an increasingly common disease worldwide. Depressive disorders were the largest contributor to nonfatal health loss globally in 2015 [1]. In that year, over 16 million adults suffered from the disease in the United States [2]. Depression is even more common in emergency department (ED) patients: 22–42% of patients fulfill criteria for major depression [3–5].

The American Board of Emergency Medicine identifies depression as "Emergent" in importance for clinicians to identify in patients, given its implications for treatment and prognosis [6]. The United States Preventive Services Task Force recommends routine screening for depression in adults, and the American Heart Association has recommended routine screening for depression in patients with heart disease [7, 8]. Depression is associated with worse physical health outcomes, ED recidivism, and poor patient satisfaction [9-14]. The treatment of depression results in fewer ED visits, provides greater patient satisfaction, and alleviates somatic manifestations that may otherwise result in further workup and testing [15]. Moreover, the ED clinician who detects

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Although the stigma of mental illness has been lessening in recent years, both patients and clinicians often remain reticent to discuss depression—resulting in underdiagnosis, undertreatment [3], and increased health care costs [16, 17]. In this environment, the ED visit provides an excellent opportunity to diagnose and treat patients with undiagnosed mental illness [18]. This chapter describes the identification and treatment of patients with depression in the emergency department through a typical case example.

## **Case Example**

Mrs. Smith is a 52-year-old female brought to the ED by her daughter for chest pain that lasted 4 hours after awakening the patient at midnight, and went away en route to the hospital. Her vital signs are unremarkable on arrival. Dr. Jones, the emergency physician, receives the report from the nurse and pushes the portable electronic medical record station in to see the patient, who appears to be in no apparent distress. Mrs. Smith is a pleasant patient who relates that her pain was substernal but otherwise cannot provide a detailed description of her pain. She does share that her

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pain was not worsened by anything and was not alleviated by an antacid pill. "Maybe," Mrs. Smith says, she felt "a little" short of breath.

At this point, Mrs. Smith's daughter interjects that her mother has been visiting for the past week and hasn't been "her usual self," and that she brought the patient in to make sure she "is not having a heart attack." Dr. Jones records a past history notable only for hypertension treated with hydrochlorothiazide "for years." The personal/ social history reveals occasional alcohol ("a glass of wine with dinner"), no smoking or drug use, and "a lot of stress" in the past 3 months since her husband told her that he wanted a divorce. Mrs. Smith went to see her primary care physician (PCP) a month ago about difficulty sleeping and was given "some pills" that "knocked me out," and she thus stopped taking them. The physical exam is unremarkable except for a flat, intermittently tearful, affect.

Concerned for depression in this patient, Dr. Jones does a brief mental status exam (MSE), which reveals no hallucinations or delusions, but does reveal that Mrs. Smith has been feeling "down" or depressed nearly every day for at least the past couple of months. Dr. Jones wonders about a diagnosis of depression and plans to revisit this diagnosis. Immediately, he orders an electrocardiogram (EKG), chest x-ray, complete blood count (CBC), chemistry profile, troponin, D-dimer, and bilateral blood pressures to exclude life-threatening cardiopulmonary conditions.

# Identifying Depression in Emergency Department Patients

The chief complaint of depressed patients is rarely "depression." As in this case, the depressed patient's ED visit is often prompted by a somatic complaint such as chest pain, epigastric pain, neck pain/headache, or panic that may or may not be related to underlying depression [19]. The astute clinician can recognize clues in the history and physical exam, identifying a patient who is possibly suffering from depression—for example, somatic complaints that are often multiple and without medical etiology; vague reasons for coming to the ED; a past or family history of depression or bipolar disorder; and a personal/ social history of having been under "stress" recently. A good history should also detect recent medication changes that might explain the patient's presenting symptoms. Signs in the physical exam include a flat, anxious, or tearful affect. The presence of these clues should prompt a brief MSE to be performed. At a minimum, the MSE should include asking about the symptoms of psychosis (such as delusions and hallucinations) and a brief assessment of mood, which can be completed at the end of the patient evaluation, as depression is a diagnosis of exclusion [20].

The diagnosis of major depression is defined by the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) [21]. The DSM-V requires that a majority of the nine criteria described in Table 7.1 be present nearly every day for at least 2 weeks and include either loss of interest in activities or depressed mood. For a loss of interest in activities, patients often admit they no longer enjoy doing things that used to interest them. Sleep disturbance is common in depression and can involve difficulty falling asleep, frequent awakening, or hypersomnia. Appetite change may be either an increase or a decrease from baseline. Depressed mood can be subjectively reported by the patient or an observation by oth-

 Table 7.1
 DSM-V criteria for major depressive episode

 [21]

Major depression requires that five (or more) of the

following nine symptoms be present nearly every day
for 2 weeks and significantly impairing. One symptom
must be either depressed mood or loss of interest in
activities:
1. Depressed mood
2. Loss of interest in activities
3. Appetite change
4. Insomnia or hypersomnia
5. Psychomotor agitation or slowing
6. Decreased energy
7. Sense of worthlessness or guilt
8. Concentration difficulties
9. Thoughts of death or suicidal ideation
These symptoms may be reported by the patient or by
others

ers, such as family members [22]. Difficulty concentrating can manifest as mental fatigability or as indecisiveness noted by others. Decreased activity and loss of energy usually accompany a loss of interest in activities. Guilt may be prominent in patients who become depressed following a life change such as divorce or death of a loved one. It is vital to identify the presence of recurrent suicidal thoughts, a suicide plan, or a recent suicide attempt; for an approach to the evaluation of suicidality, see the related chapter on Chap. 8.

To ease remembering the DSM-V criteria in a busy ED, clinicians may use the mnemonic "In SAD CAGES," which is described in Table 7.2 [5]. "In SAD CAGES" not only encompasses the nine DSM-V criteria but also describes the disease in question and takes at most 2 minutes at the bedside with the patient.

The optimal time to screen for depression is after the initial ED workup based on the chief complaint. Especially after a negative workup, patients are often receptive to considering depression as an explanation for their symptoms. This discussion may easily be started with a straightforward question: "Do you think you might be depressed?" Patients find this question nonthreatening and nonjudgmental; the patient's answer will help the clinician understand the patient's openness to a psychiatric diagnosis. Most patients are grateful to have a diagnosis that explains symptoms they have been having for weeks,

 Table 7.2
 "In SAD CAGES," a screening tool for depression in the ED [23]

Instructions: Score 1 point for each symptom present. 5–6 points suggest mild depression; 7–8 points suggest moderate depression; 9 points suggest severe depression and should prompt an in-depth suicide risk assessment

months, or even years. When the patient admits to a full spectrum of depressive symptoms, the diagnosis is usually easy to make and does not require further laboratory evaluation [24].

#### Case, Continued

An hour later, Dr. Jones reviews the patient's laboratory results, which are all unremarkable. A quick calculation reveals Mrs. Smith's HEART score to be 2, or "low probability" of a major cardiac event. Dr. Jones then discusses the results with the patient and daughter, who decline further observation and testing. The final emergent condition on Dr. Jones's differential is major depression. Dr. Jones asks if Mrs. Smith thinks she might be depressed. Mrs. Smith tears up and says, "I've been wondering about that myself." Dr. Jones spends a minute to complete "In SAD CAGES," to which the patient and daughter answer "yes" to all criteria except being suicidal, which Mrs. Smith confides is "against my religion."

# Treating Depression in Emergency Department Patients

Once depression has been identified, a discussion of treatment options can begin. Exercise and routine physical activity are an effective treatment, particularly for milder cases of depression (five or six positive "In SAD CAGES" symptoms) [25]. One recommended regimen is 1 hour of structured exercise, three times per week for at least 10–14 weeks [26].

ED clinicians should consider initiating pharmacotherapy for patients who have moderate depression (seven or eight positive "In SAD CAGES" symptoms) or prefer medications to nonpharmacologic treatments like exercise [20, 22, 27]. A large body of literature supports the superiority of selective serotonin reuptake inhibitors (SSRIs) compared with placebo in the treatment of depression [28]. Sertraline, starting at 50 mg orally per day, or citalopram, starting at 20 mg orally per day, are safe, effective, and have favorable side effect profiles [29, 30]. No dosage adjustment is typically necessary for older adults [31]. Patients may see symptomatic improvement in the first week on medication [32], but it may take weeks for the complete resolution of depression [20].

Follow up should occur in 1–2 weeks after ED discharge [20]. At that point, patients with persistent symptoms may also consider adding psychotherapy [28]. Psychotherapy—in particular, evidence-based, time-limited therapies like cognitive behavioral therapy—helps patients recognize and reframe negative thinking. Other treatments may be considered for subtypes of depression, such as light therapy for seasonal depression [28]. Patients who are discharged should receive educational instructions about their disease, their medications, and return precautions that include mention of suicidal thinking.

Indications for a psychiatric consult and consideration of hospital admission for a patient include suicidality or a history of bipolar disorder [20]. Also, consider a consultation for depression in adolescents through age 24, as 2% of adolescents experience an increase in suicidal thinking after starting treatment [20]. For more information on the indications for psychiatric admission, see the related Chap. 20 on when to admit psychiatric patients.

## **Case, Conclusion**

Mrs. Smith expressed gratitude for a diagnosis to explain her recent suffering. Since she has been exercising the past month and has at least moderate depression (eight of nine criteria), a discussion about medication prompts a request for a prescription antidepressant from the patient and daughter. Dr. Jones discharges Mrs. Smith with a prescription for citalopram, 20 mg by mouth daily for 30 days with no refills. Dr. Jones tells Mrs. Smith that she might need to take citalopram for a few months, but fortunately, it is available as an inexpensive \$4-per-month generic medication at stores like Walmart. Mrs. Smith also receives teaching about depression and the need to follow up with her PCP in 1–2 weeks. She is advised to return to the ED if she has medication side effects or suicidal thoughts; the family is also provided the number for the National Suicide Prevention Lifeline, 800-273-8255(TALK). Mrs. Smith and her daughter leave the ED with new optimism, and they promise to recommend Dr. Jones and this ED to others.

# Conclusion

Depression is a common reason for presentations to emergency departments. Depression should be identified by the ED clinician, who is in a position to initiate treatment and refer the patient for definitive care. With astute identification and evidence-based treatment of depression, ED clinicians can reduce physical and emotional suffering, ED recidivism, and health care costs, while improving patients' satisfaction with care.

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