

# Use of Algorithms to Treat Anxiety in Primary Care

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The presentations of anxiety in primary care are more numerous and broader in spectrum than the presentations of depression, and the primary care physician is often faced with the challenge of teasing out a diagnosis from the full spectrum of anxiety disorders. A treatment algorithm that begins with recognition and diagnosis and carries the primary care physician and patient through long-term treatment and, finally, withdrawal of treatment can be a useful and appropriate tool. Use of an algorithm targeted specifically for primary care physicians treating patients with anxiety disorders would insure that patients in the primary care setting receive the best care during treatment of anxiety disorders, while primary care physicians become better able to serve a broader community.

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The care of patients with anxiety disorders requires primary care physicians to respond to a broad range of often complex management issues as they assess patients, initiate an acute management strategy, and then work with patients over the long term to optimize treatment response and prevent relapse. Primary care physicians can benefit from the guidance provided by algorithms as they manage such patients. Several predominant modes of presentation are similar for both anxiety disorders and medical disorders and that make the differential diagnosis of anxiety presentations complex for the primary care provider. Once a diagnosis of an anxiety disorder is made, the primary care physician is then faced with the task of choosing an appropriate treatment approach. A useful and effective algorithm must begin with strategies to efficiently recognize and diagnose anxiety disorders and then guide the primary care physician and patient through acute and long-term treatment and, eventually, withdrawal of treatment.

## PRESENTATIONS

The first step of an algorithm should guide the physician in recognizing and interpreting patient presentations and establishing an accurate anxiety diagnosis. There are 3 predominant modes of presentation of anxiety disorders:

1. Somatic: The somatic presentation, which is very common, includes a variety of complaints such as pain syndromes, headache, fatigue, insomnia, and gastrointestinal symptoms.
2. Psychiatric: A less common presentation is the psychiatric presentation, which occurs when patients label their own symptoms as being a specific disorder. These patients may see a television commercial or other representation of a disorder and relate their symptoms to those described. A patient's self-diagnosis might not be correct, and the physician must determine the validity of the diagnosis.
3. High-Utilizer: Finally, there is a group of patients that are even subtler in presentation, known as high utilizers. These patients visit frequently and with a myriad of complaints, often for which there is a legitimate basis but for which other patients do not present to the physician.<sup>1</sup> The high-utilizer presentation is one of decreased ability to function in life and the need for the physician as support. This presentation can be complex in that a patient's decreased coping may be due to personality characteristics that have driven away other social supports. These patients are left with the medical system as the provider of support, and their resulting high utilization stems directly from the sympathetic response they receive from their primary care provider. At the same time, this support might be critical to maintaining their functioning, and the broad clinical expertise of the primary care physician at times leads to recognition of serious medical pathology occurring concomitantly with the anxiety disorder.

Early studies<sup>2</sup> showed that when a patient visited with a psychiatric presentation, primary care physicians were

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good at recognizing anxiety and responding appropriately. However, the psychiatric presentation is less common, occurring in about 17% of patients. Conversely, somatic presentations are the most common, occurring in 83% of patients, but these patients are infrequently recognized and often treated inappropriately by primary care physicians.

Kessler and colleagues<sup>3</sup> extended these findings by identifying an additional presentation group of primary care patients that may be the most common. This group includes patients who present with a normalizing attribution of their somatic symptoms of anxiety. For example, a patient may be concerned about such symptoms as fatigue or insomnia but attribute them to stress, lack of exercise, or poor eating habits. This study showed that when patients present with a normalizing attribution, primary care physicians failed to recognize the underlying anxiety disorder. Of the patients who met full criteria for an anxiety or depressive disorder but were normalizing in their presentation, only 15% were recognized as having a psychiatric problem of any type by the primary care physician. Further, the normalizing presentation was present in almost half of the patients interviewed.

## DIAGNOSIS

Once a patient is recognized as having symptoms of a mental health problem within the anxiety constellation, the challenge then becomes making the appropriate diagnosis. The first question to resolve in making a diagnosis is whether the patient is suffering from an underlying medical condition. Could the symptoms of anxiety be the result of a new-onset or a chronic medical condition?

### Medical Conditions

Many medical conditions can be masked by symptoms of anxiety, some of which are fairly frequent and obvious to primary care providers, including chronic obstructive pulmonary disease and coronary insufficiency. However, other medical conditions may be less frequent and much subtler. Conditions like hypoparathyroidism, pancreatic tumor, pheochromocytoma, some epilepsies, pulmonary emboli, and some presentations of coronary artery disease are less obvious in their presentations and may be masked by anxiety symptoms. Medication for a chronic or acute condition also can cause anxiety symptoms as a side effect. So, in primary care, physicians have the additional responsibility of weeding through potential anxiety presentations to uncover frequently occurring and unusual medical conditions.

There are clues that can be used to differentiate medical and psychiatric patient presentations. Certainly, the patient who has been in perfect physical health, has had no anxiety symptoms until well into adulthood, and who develops new-onset anxiety after age 35 years should be carefully screened for an underlying medical condition. Because

generalized anxiety disorder (GAD) tends to be a condition that waxes and wanes and that frequently evolves with a patient throughout life, an anxious adult who is recognized as having GAD usually will have had an anxious childhood, adolescence, and even a fretful infancy.<sup>4</sup> On the other hand, a patient can present with acute onset of panic attacks progressing to panic disorder following a significant life event, or the patient can experience an acute life event that leads to posttraumatic stress disorder (PTSD). A patient who has no childhood history of phobia, separation anxiety, or personal or family history of anxiety disorder until adulthood and who has not recently experienced a significant life event is a strong candidate for having an underlying medical or medication-related problem.<sup>5</sup> Another clue to an underlying medical condition is when a patient presents with an acknowledgment of the anxiety symptoms and concern about the anxiety itself. The lack of avoidance behavior in a patient's attitude about the anxiety often is an indication that the anxiety is not due to mental health concerns but rather to an underlying medical condition. In contrast, the patient who presents with numerous somatic complaints is likely to have a psychiatric disorder.<sup>6</sup>

### Comorbid Disorders

A consideration of the full breadth of diagnostic possibilities also must include assessment for potentially comorbid disorders. Over half of all depressed patients also suffer from at least 1 comorbid anxiety disorder, and comorbidities of anxiety disorders with other anxiety disorders are also quite frequent.<sup>7</sup> So, the patient with panic disorder may well also have GAD, PTSD, or depression. The recognition of those overlaps is useful in guiding patient education, treatment selection, and joint goal-setting with the patient.

## ACUTE PHASE TREATMENT APPROACHES

After diagnosis, the next step of an algorithm for anxiety should guide acute treatment and include several key tools useful in this phase of treatment.

### Education

One of the most important aspects of treatment is patient education. A variety of educational supports or tool kits that are easily individualized to the patient's diagnosis, education level, language, and understanding of the condition would be of help to the primary care physician. Patients should receive supportive lifestyle counseling about such issues as avoiding excessive caffeine, getting appropriate sleep, and coping with daily stresses.<sup>5</sup> Patients will frequently suffer from difficulties in sleeping, and giving the patient advice about sleep management can be critical.<sup>8</sup> Common sleep issues include long sleep latency with GAD, nightmares with PTSD, and early morning awakening with depression. Exercise can also be very helpful to

these patients, and prescribing an exercise program that is developed in conjunction with the patient is another necessary part of patient education.<sup>9,10</sup>

### **Psychotherapy, Pharmacotherapy, and Patient Preference**

When deciding on specific treatment for an anxiety disorder, a physician must consider the personal treatment preferences of each patient. While psychotherapies and pharmacotherapies are both effective in treating patients with anxiety disorders and depression, matching them to patient preference is a key variable in determining effectiveness.<sup>11,12</sup> Particularly for psychotherapies, the patient must agree to the therapy for it to be effective.

Efficacy data for a particular medication must also be considered in selecting an appropriate treatment. The physician should determine whether an agent has been appropriately studied and shown to be efficacious for the patient's diagnoses. Some agents that are used for anxiety have received indications for particular anxiety disorders but not others. An algorithm should guide the physician regarding various drugs' spectrum of efficacy.

When a patient with an anxiety disorder has a comorbid chronic medical illness, the potential for drug-drug interactions must be considered when making treatment decisions. The potential for side effects with a medication is also important to consider when initiating treatment, especially with the selective serotonin reuptake inhibitors (SSRIs). Side effects can be of great concern to the patient, especially if the medication is to be used for long-term maintenance therapy. An algorithm should guide the physician in obtaining an initial history that might help identify potential side effects that are of particular concern to individual patients. For example, obtaining a history of sexual dysfunction before starting an antidepressant can identify those patients with long-established organically-based sexual dysfunction due to diabetes or other disorders or those who have had sexual dysfunction develop as part of a comorbid depressive disorder. This information might be helpful in selecting among treatment options.<sup>2</sup> Similarly identifying the patient who has been concerned about his or her weight can be helpful since some SSRIs have been shown to cause weight gain much more frequently than others.

### **Continuing Care**

Beyond selecting an appropriate acute-phase treatment, an algorithm should guide the physician in support of the ongoing care of the anxiety patient. This would include having someone in the physician's office call the patient to see if he or she had the prescription filled, took the initial doses, has any early side effects, or has any other concerns he or she wishes to discuss with the physician. Responding to these concerns can be critical to establishing long-term adherence to treatment.

Once treatment is initiated, the algorithm must provide guidance to the primary care physician for rapidity of titration, dosage adjustment, and management of early adverse effects. Dealing effectively with those adverse effects that do develop, such as activation, gastrointestinal problems, nausea, and sexual dysfunction, is crucial to attaining treatment success. Some adverse effects frequently resolve during the first 1 to 3 weeks and only require reassurance, while others, including sexual dysfunction, can persist but might be minimized by medication dose timing.

As the primary care physician and patient move through the acute phase, the algorithm must help the physician accurately identify problems such as a lack of full response and treatment resistance. If either the physician or the patient is dissatisfied with the progress of the acute-phase treatment, the physician needs guidance in treatment options such as dose increases, augmentation, switching, adding psychotherapy, or referral and consultation.

### **LONG-TERM TREATMENT**

Once a physician and patient have established a successful treatment plan, the next step in the recovery process is to focus on long-term treatment that leads to symptom remission and, ultimately, full functional return. An important function of an algorithm should be to emphasize to primary care physicians (and ultimately to patients) that the goal of treatment does not end with response. Appropriate measurement tools must be used to assess the patient's progress during treatment. For example, identifying the anxiety symptoms that are particularly bothersome for a patient at the time of diagnosis and charting these on a medical record flow chart can be of help in tracking response. The depression module of the Patient Health Questionnaire (PHQ-9)<sup>13</sup> can be used in quantifying symptom improvement in patients with comorbid depression during both acute-phase and long-term treatment. Late side effects—again, especially sexual dysfunction and weight gain—are key aspects to monitor. Management of late side effects also might benefit from tracking on a flow chart.

Achieving full functional return for patients with anxiety disorders is a challenge, because it is an area in which physicians lack a great deal of research and guidance. For instance, the GAD patient who has suffered from an anxiety disorder since childhood might never have reached full function in many areas of adult life. Functional improvement may occur at some distance from symptom remission, and improvement of function may continue 12 or 18 months following symptom remission. However difficult it might be to assess the return of full functioning, this should, nevertheless, remain the long-term treatment goal.

### Treatment Discontinuation

Once the patient and physician have determined that a full functional return has been achieved, it is time to consider the need for long-term maintenance therapy or withdrawal of treatment. It is important for an algorithm to address major issues such as when a patient should be withdrawn, whether doses should be reduced weekly or monthly, and what role the method of withdrawal plays in maintaining lifetime effectiveness of treatment. For a woman who has had an association of symptoms with her menstrual cycle, one approach is to decrease the dose with each menstrual cycle, withdrawing the patient over several cycles. Therefore, it may be necessary to consider different withdrawal approaches for men and women, and an effective algorithm must provide those cues.

Once a patient has successfully stopped treatment, an algorithm should guide the physician in monitoring the patient over the initial year and the long term so that a relapse can be identified early, should such occur. An algorithm should also aid the physician in educating the patient regarding self-monitoring and early identification of relapse.

### GOAL OF ALGORITHMS FOR PRIMARY CARE PHYSICIANS

The dilemmas and management decisions facing the primary care physician in recognizing the initial presentation and diagnosing anxiety disorders are numerous. Algorithms could be an effective solution to these initial tasks, as well as to the tasks of managing patients during acute and long-term treatment. Algorithms in the primary care setting should assist physicians in expanding their knowledge regarding the management of anxiety disorders. This goal extends beyond simple education to giving primary care providers the confidence to expand their diagnostic and treatment repertoire. A primary care physician with a broad repertoire of treatment options can be particularly helpful to patients in underserved urban and rural settings, where psychiatric consultant services might be scarce.

Algorithms should insure that primary care physicians appropriately tie adjustment of therapy to objective measures. Such measures must be individualized for the symptom complex affecting a patient, and they should reflect the relative importance to the patient of various symptoms. In addition, using standardized measures to assess the appropriate range and degree of functional improvement, including such measures as work, family, and social performance, can be helpful in managing a patient over the long term. One difficulty is that while such brief instruments are available for depression, they are only now being developed for the anxiety disorders.

Finally, algorithms can help physicians conceptualize the appropriate mobilization of their practice team.<sup>14</sup>

Whether physicians are in solo practice, partnerships, or small group settings, algorithms should provide them with a guide to using their full practice resources. Electronic medical records are becoming more powerful and more prevalent. Improved anxiety management and treatment outcomes might result from the effective interaction of such records with algorithms, particularly if they are used in coordinating the efforts of practice staff in supporting patients. The use of e-mail and the potential for Internet-based interaction with patients are additional tools that might be incorporated into successful algorithms.

Continuing efforts to expand and improve the treatment options for primary care physicians and patients suffering from anxiety disorders are likely to result in major improvements in the care and resultant outcomes of these patients. Algorithms provide one approach to meeting this need.

*Disclosure of off-label usage:* The author has determined that, to the best of his knowledge, no investigational information about pharmaceutical agents has been presented in this article that is outside U.S. Food and Drug Administration–approved labeling.

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