02 - 9.2 Panic Disorder

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Schanche E. The transdiagnostic phenomenon of self-criticism. Psychotherapy. 2013;50:316. Shin LM, Davis FC, Van Elzakker MB, Dahlgren MK, Dubois SJ. Neuroimaging predictors of treatment response in anxiety disorders. Bio Mood Anxiety Dis. 2013;3:15. Stein DJ, Hollander E, Rothbaum BO, eds. Textbook of Anxiety Disorders. 2nd edition. Arlington, VA: American Psychiatric Publishing; 2009. Stein DJ, Nesse RM. Threat detection, precautionary responses, and anxiety disorders. Neurosci Biobehav Rev. 2011;35:1075. Taylor S, Abramowitz JS, McKay D. Non-adherence and non-response in the treatment of anxiety disorders. J Anxiety Disord. 2012;26:583. Uebelacker L, Weisberg R, Millman M, Yen S, Keller M. Prospective study of risk factors for suicidal behavior in individuals with anxiety disorders. Psychological Med. 2013;43:1465. 9.2 Panic Disorder An acute intense attack of anxiety accompanied by feelings of impending doom is known as panic disorder. The anxiety is characterized by discrete periods of intense fear that can vary from several attacks during one day to only a few attacks during a year. Patients with panic disorder present with a number of comorbid conditions, most commonly agoraphobia, which refers to a fear of or anxiety regarding places from which escape might be difficult. HISTORY The idea of panic disorder may have its roots in the concept of irritable heart syndrome, which the physician Jacob Mendes DaCosta (1833–1900) noted in soldiers in the American Civil War. DaCosta’s syndrome included many psychological and somatic symptoms that have since been included among the diagnostic criteria for panic disorder. In 1895, Sigmund Freud introduced the concept of anxiety neurosis, consisting of acute and chronic psychological and somatic symptoms. EPIDEMIOLOGY The lifetime prevalence of panic disorder is in the 1 to 4 percent range, with 6-month prevalence approximately 0.5 to 1.0 percent and 3 to 5.6 percent for panic attacks. Women are two to three times more likely to be affected than men, although underdiagnosis of panic disorder in men may contribute to the skewed distribution. The differences among Hispanics, whites, and blacks are few. The only social factor identified as contributing to the development of panic disorder is a recent history of divorce or separation. Panic disorder most commonly develops in young adulthood—the mean age of presentation is about 25 years—but both panic disorder and agoraphobia can develop at any age. Panic disorder has been reported in children and adolescents, and it is probably underdiagnosed in these age groups.

COMORBIDITY Of patients with panic disorder, 91 percent have at least one other psychiatric disorder. About one-third of persons with panic disorders have major depressive disorder before onset; about two-thirds first experience panic disorder during or after the onset of major depression. Other disorders also commonly occur in persons with panic disorder. Of persons with panic disorder, 15 to 30 percent also have social anxiety disorder or social phobia, 2 to 20 percent have specific phobia, 15 to 30 percent have generalized anxiety disorder, 2 to 10 percent have

PTSD, and up to 30 percent have OCD. Other common comorbid conditions are hypochondriasis or illness anxiety disorder, personality disorders, and substance-related disorders. ETIOLOGY Biological Factors Research on the biological basis of panic disorder has produced a range of findings; one interpretation is that the symptoms of panic disorder are related to a range of biological abnormalities in brain structure and function. Most work has used biological stimulants to induce panic attacks in patients with panic disorder. Considerable evidence indicates that abnormal regulation of brain noradrenergic systems is also involved in the pathophysiology of panic disorder. These and other studies have produced hypotheses implicating both peripheral and central nervous system (CNS) dysregulation in the pathophysiology of panic disorder. The autonomic nervous systems of some patients with panic disorder have been reported to exhibit increased sympathetic tone, to adapt slowly to repeated stimuli, and to respond excessively to moderate stimuli. Studies of the neuroendocrine status of these patients have shown several abnormalities, although the studies have been inconsistent in their findings. The major neurotransmitter systems that have been implicated are those for norepinephrine, serotonin, and GABA. Serotonergic dysfunction is quite evident in panic disorder, and various studies with mixed serotonin agonist–antagonist drugs have demonstrated increased rates of anxiety. Such responses may be caused by postsynaptic serotonin hypersensitivity in panic disorder. Preclinical evidence suggests that attenuation of local inhibitory GABAergic transmission in the basolateral amygdala, midbrain, and hypothalamus can elicit anxiety-like physiological responses. The biological data have led to a focus on the brainstem (particularly the noradrenergic neurons of the locus ceruleus and the serotonergic neurons of the median raphe nucleus), the limbic system (possibly responsible for the generation of anticipatory anxiety), and the prefrontal cortex (possibly responsible for the generation of phobic avoidance). Among the various neurotransmitters involved, the noradrenergic system has also attracted much attention, with the presynaptic α2-adrenergic receptors, particularly, playing a significant role. Patients with panic disorder are sensitive to the

anxiogenic effects of yohimbine in addition to having exaggerated MHPG, cortisol, and cardiovascular responses. They have been identified by pharmacological challenges with the α2-receptor agonist clonidine (Catapres) and the α2-receptor antagonist yohimbine (Yocon), which stimulates firing of the locus ceruleus and elicits high rates of panic-like activity in those with panic disorder. Panic-Inducing Substances. Panic-inducing substances (sometimes called panicogens) induce panic attacks in most patients with panic disorder and in a much smaller proportion of persons without panic disorder or a history of panic attacks. Socalled respiratory panic-inducing substances cause respiratory stimulation and a shift in the acid–base balance. These substances include carbon dioxide (5 to 35 percent mixtures), sodium lactate, and bicarbonate. Neurochemical panic-inducing substances that act through specific neurotransmitter systems include yohimbine, an α2-adrenergic receptor antagonist; mCPP, an agent with multiple serotonergic effects; m-Caroline drugs; GABAB receptor inverse agonists; flumazenil (Romazicon), a GABAB receptor antagonist; cholecystokinin; and caffeine. Isoproterenol (Isuprel) is also a panicinducing substance, although its mechanism of action in inducing panic attacks is poorly understood. The respiratory panic-inducing substances may act initially at the peripheral cardiovascular baroreceptors and relay their signal by vagal afferents to the nucleus tractus solitarii and then on to the nucleus paragigantocellularis of the medulla. The hyperventilation in patients with panic disorder may be caused by a hypersensitive suffocation alarm system whereby increasing PCO2 and brain lactate concentrations prematurely activate a physiological asphyxia monitor. The neurochemical panicinducing substances are presumed to primarily affect the noradrenergic, serotonergic, and

GABA receptors of the CNS directly. Brain Imaging. Structural brain imaging studies, for example, MRI, in patients with panic disorder have implicated pathological involvement in the temporal lobes, particularly the hippocampus and the amygdala. One MRI study reported abnormalities, especially cortical atrophy, in the right temporal lobe of these patients. Functional brain imaging studies, for example, positron emission tomography (PET), have implicated dysregulation of cerebral blood flow (smaller increase or an actual decrease in cerebral blood flow). Specifically, anxiety disorders and panic attacks are associated with cerebral vasoconstriction, which may result in CNS symptoms, such as dizziness, and in peripheral nervous system symptoms that may be induced by hyperventilation and hypocapnia. Most functional brain imaging studies have used a specific panic-inducing substance (e.g., lactate, caffeine, or yohimbine) in combination with PET or SPECT to assess the effects of the panic-inducing substance and the induced panic attack on cerebral blood flow. Mitral Valve Prolapse. Although great interest was formerly expressed in an association between mitral valve prolapse and panic disorder, research has almost

completely erased any clinical significance or relevance to the association. Mitral valve prolapse is a heterogeneous syndrome consisting of the prolapse of one of the mitral valve leaflets, resulting in a midsystolic click on cardiac auscultation. Studies have found that the prevalence of panic disorder in patients with mitral valve prolapse is the same as the prevalence of panic disorder in patients without mitral valve prolapse. Genetic Factors Various studies have found that the first-degree relatives of patients with panic disorder have a four- to eightfold higher risk for panic disorder than first-degree relatives of other psychiatric patients. The twin studies conducted to date have generally reported that monozygotic twins are more likely to be concordant for panic disorder than are dizygotic twins. At this point, no data exist indicating an association between a specific chromosomal location or mode of transmission and this disorder. Psychosocial Factors Psychoanalytic theories have been developed to explain the pathogenesis of panic disorder. Psychoanalytic theories conceptualize panic attacks as arising from an unsuccessful defense against anxiety-provoking impulses. What was previously a mild signal anxiety becomes an overwhelming feeling of apprehension, complete with somatic symptoms. Many patients describe panic attacks as coming out of the blue, as though no psychological factors were involved, but psychodynamic exploration frequently reveals a clear psychological trigger for the panic attack. Although panic attacks are correlated neurophysiologically with the locus ceruleus, the onset of panic is generally related to environmental or psychological factors. Patients with panic disorder have a higher incidence of stressful life events (particularly loss) than control subjects in the months before the onset of panic disorder. Moreover, the patients typically experience greater distress about life events than control subjects do. The hypothesis that stressful psychological events produce neurophysiological changes in panic disorder is supported by a study of female twins. Separation from the mother early in life was clearly more likely to result in panic disorder than was paternal separation in the cohort of 1,018 pairs of female twins. Another etiological factor in adult female patients appears to be childhood physical and sexual abuse. Approximately 60 percent of women with panic disorder have a history of childhood sexual abuse compared with 31 percent of women with other anxiety disorders. Further support for psychological mechanisms in panic disorder can be inferred from a study of panic disorder in which patients received successful treatment with cognitive therapy. Before the therapy, the patients responded to panic attack induction with lactate. After successful cognitive therapy, lactate infusion no longer produced a panic attack. The research indicates that the cause of panic attacks is likely to involve the unconscious meaning of stressful events and that the pathogenesis of the panic attacks may be

related to neurophysiological factors triggered by the psychological reactions.

Psychodynamic clinicians should always thoroughly investigate possible triggers whenever assessing a patient with panic disorder. The psychodynamics of panic disorder are summarized in Table 9.2-1. Table 9.2-1 Psychodynamic Themes in Panic Disorder DIAGNOSIS Panic Attacks A panic attack is a sudden period of intense fear or apprehension that may last from minutes to hours. Panic attacks can occur in mental disorders other than panic disorder, particularly in specific phobia, social phobia, and PTSD. Unexpected panic attacks occur at any time and are not associated with any identifiable situational stimulus, but panic attacks need not be unexpected. Attacks in patients with social and specific phobias are usually expected or cued to a recognized or specific stimulus. Some panic attacks do not fit easily into the distinction between unexpected and expected, and these attacks are referred to as situationally predisposed panic attacks. They may or may not occur when a patient is exposed to a specific trigger, or they may occur either immediately after exposure or after a considerable delay. Panic Disorder The fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) diagnostic criteria for panic disorder are listed in Table 9.2-2. Some community surveys have indicated that panic attacks are common, and a major issue in developing diagnostic criteria for panic disorder was determining a threshold number or frequency of panic attacks required to meet the diagnosis. Setting the threshold too low results in the diagnosis of panic disorder in patients who do not have an impairment from an

occasional panic attack; setting the threshold too high results in a situation in which patients who are impaired by their panic attacks do not meet the diagnostic criteria. Table 9.2-2 DSM-5 Diagnostic Criteria for Panic Disorder

CLINICAL FEATURES The first panic attack is often completely spontaneous, although panic attacks occasionally follow excitement, physical exertion, sexual activity, or moderate

emotional trauma. Clinicians should attempt to ascertain any habit or situation that commonly precedes a patient’s panic attacks. Such activities may include the use of caffeine, alcohol, nicotine, or other substances; unusual patterns of sleeping or eating; and specific environmental settings, such as harsh lighting at work. The attack often begins with a 10-minute period of rapidly increasing symptoms. The major mental symptoms are extreme fear and a sense of impending death and doom. Patients usually cannot name the source of their fear; they may feel confused and have trouble concentrating. The physical signs often include tachycardia, palpitations, dyspnea, and sweating. Patients often try to leave whatever situation they are in to seek help. The attack generally lasts 20 to 30 minutes and rarely more than an hour. A formal mental status examination during a panic attack may reveal rumination, difficulty speaking (e.g., stammering), and impaired memory. Patients may experience depression or depersonalization during an attack. The symptoms can disappear quickly or gradually. Between attacks, patients may have anticipatory anxiety about having another attack. The differentiation between anticipatory anxiety and generalized anxiety disorder can be difficult, although patients with pain disorder with anticipatory anxiety can name the focus of their anxiety. Somatic concerns of death from a cardiac or respiratory problem may be the major focus of patients’ attention during panic attacks. Patients may believe that the palpitations and chest pain indicate that they are about to die. As many as 20 percent of such patients actually have syncopal episodes during a panic attack. The patients may be seen in emergency departments as young (20s), physically healthy persons who nevertheless insist that

they are about to die from a heart attack. Rather than immediately diagnosing hypochondriasis, the emergency department physician should consider a diagnosis of panic disorder. Hyperventilation can produce respiratory alkalosis and other symptoms. The age-old treatment of breathing into a paper bag sometimes helps because it decreases alkalosis. Mrs. K was a 35-year-old woman who initially presented for treatment at the medical emergency department at a large university-based medical center. She reported that while sitting at her desk at her job, she had suddenly experienced difficulty breathing, dizziness, tachycardia, shakiness, and a feeling of terror that she was going to die of a heart attack. A colleague drove her to the emergency department, where she received a full medical evaluation, including electrocardiography and routine blood work, which revealed no sign of cardiovascular, pulmonary, or other illness. She was subsequently referred for psychiatric evaluation, where she revealed that she had experienced two additional episodes over the past month, once when driving home from work and once when eating breakfast. However, she had not presented for medical treatment because the symptoms had resolved relatively quickly each time, and she worried that if she went to the hospital without ongoing symptoms, “people would think I’m crazy.” Mrs. K reluctantly took the phone number of a local psychiatrist but did not call until she

experienced a fourth episode of a similar nature. (Courtesy of Erin B. McClure-Tone, Ph.D., and Daniel S. Pine, M.D.) Associated Symptoms Depressive symptoms are often present in panic disorder, and in some patients, a depressive disorder coexists with the panic disorder. Some studies have found that the lifetime risk of suicide in persons with panic disorder is higher than it is in persons with no mental disorder. Clinicians should be alert to the risk of suicide. In addition to agoraphobia, other phobias and OCD can coexist with panic disorder. The psychosocial consequences of panic disorder, in addition to marital discord, can include time lost from work, financial difficulties related to the loss of work, and alcohol and other substance abuse. DIFFERENTIAL DIAGNOSIS Panic Disorder The differential diagnosis for a patient with panic disorder includes many medical disorders (Table 9.2-3), as well as many mental disorders. Table 9.2-3 Organic Differential Diagnosis for Panic Disorder

Medical Disorders Panic disorder must be differentiated from a number of medical conditions that produce similar symptomatology. Panic attacks are associated with a variety of endocrinological disorders, including both hypo- and hyperthyroid states, hyperparathyroidism, and pheochromocytomas. Episodic hypoglycemia associated with insulinomas can also produce panic-like states, as can primary neuropathological processes. These include seizure disorders, vestibular dysfunction, neoplasms, or the effects of both prescribed and illicit substances on the CNS. Finally, disorders of the cardiac and pulmonary systems, including arrhythmias, chronic obstructive pulmonary disease, and asthma, can produce autonomic symptoms and accompanying crescendo anxiety that can be difficult

to distinguish from panic disorder. Clues of an underlying medical etiology to panic-like symptoms include the presence of atypical features during panic attacks, such as ataxia, alterations in consciousness, or bladder dyscontrol; onset of panic disorder relatively late in life; and physical signs or symptoms indicative of a medical disorder. Mental Disorders Panic disorder also must be differentiated from a number of psychiatric disorders, particularly other anxiety disorders. Panic attacks occur in many anxiety disorders, including social and specific phobia, Panic may also occur in PTSD and OCD. The key to correctly diagnosing panic disorder and differentiating the condition

from other anxiety disorders involves the documentation of recurrent spontaneous panic attacks at some point in the illness. Differentiation from generalized anxiety disorder can also be difficult. Classically, panic attacks are characterized by their rapid onset (within minutes) and short duration (usually less than 10 to 15 minutes), in contrast to the anxiety associated with generalized anxiety disorder, which emerges and dissipates more slowly. Making this distinction can be difficult, however, because the anxiety surrounding panic attacks can be more diffuse and slower to dissipate than is typical. Because anxiety is a frequent concomitant of many other psychiatric disorders, including the psychoses and affective disorders, discrimination between panic disorder and a multitude of disorders can also be difficult. Specific and Social Phobias Sometimes it is difficult to distinguish between panic disorder, on the one hand, and specific and social phobias, on the other hand. Some patients who experience a single panic attack in a specific setting (e.g., an elevator) may go on to have long-lasting avoidance of the specific setting, regardless of whether they ever have another panic attack. These patients meet the diagnostic criteria for a specific phobia, and clinicians must use their judgment about what is the most appropriate diagnosis. In another example, a person who experiences one or more panic attacks may then fear speaking in public. Although the clinical picture is almost identical to the clinical picture in social phobia, a diagnosis of social phobia is excluded because the avoidance of the public situation is based on fear of having a panic attack rather than on fear of the public speaking itself. COURSE AND PROGNOSIS Panic disorder usually has its onset in late adolescence or early adulthood, although onset during childhood, early adolescence, and midlife does occur. Some data implicate increased psychosocial stressors with the onset of panic disorder, although no psychosocial stressor can be definitely identified in most cases. Panic disorder, in general, is a chronic disorder, although its course is variable, both among patients and within a single patient. The available long-term follow-up studies of

panic disorder are difficult to interpret because they have not controlled for the effects of treatment. Nevertheless, about 30 to 40 percent of patients seem to be symptom free at long-term follow-up, about 50 percent have symptoms that are sufficiently mild not to affect their lives significantly, and about 10 to 20 percent continue to have significant symptoms. After the first one or two panic attacks, patients may be relatively unconcerned about their condition; with repeated attacks, however, the symptoms may become a major concern. Patients may attempt to keep the panic attacks secret and thereby cause their families and friends concern about unexplained changes in behavior. The frequency and severity of the attacks can fluctuate. Panic attacks can occur several times in a day or less than once a month. Excessive intake of caffeine or nicotine can exacerbate the symptoms. Depression can complicate the symptom picture in anywhere from 40 to 80 percent of all patients, as estimated by various studies. Although the patients do not tend to talk about suicidal ideation, they are at increased risk for committing suicide. Alcohol and other substance dependence occurs in about 20 to 40 percent of all patients, and OCD may also develop. Family interactions and performance in school and at work commonly suffer. Patients with good premorbid functioning and symptoms of brief duration tend to have good prognoses. TREATMENT With treatment, most patients exhibit dramatic improvement in the symptoms of panic disorder and agoraphobia. The two most effective treatments are pharmacotherapy and cognitive-behavioral therapy. Family and group therapy may help affected patients and their families adjust to the patient’s disorder and to the psychosocial difficulties that the disorder may have precipitated. Pharmacotherapy Overview. Alprazolam (Xanax) and paroxetine (Paxil) are the two drugs approved by the US Food and Drug Administration (FDA) for the treatment of panic disorder.

In general, experience is showing superiority of the selective serotonin reuptake inhibitors (SSRIs) and clomipramine (Anafranil) over the benzodiazepines, monoamine oxidase inhibitors (MAOIs), and tricyclic and tetracyclic drugs in terms of effectiveness and tolerance of adverse effects. Some reports have suggested a role for venlafaxine (Effexor), and buspirone (BuSpar) has been suggested as an additive medication in some cases. Venlafaxine is approved by the FDA for treatment of generalized anxiety disorder and may be useful in panic disorder combined with depression. β-adrenergic receptor antagonists have not been found to be particularly useful for panic disorder. A conservative approach is to begin treatment with paroxetine, sertraline (Zoloft), citalopram (Celexa), or fluvoxamine (Luvox) in isolated panic disorder. If rapid control of severe symptoms is desired, a brief course of alprazolam should be initiated

concurrently with the SSRI followed by slowly tapering use of the benzodiazepine. In long-term use, fluoxetine (Prozac) is an effective drug for panic with comorbid depression, although its initial activating properties may mimic panic symptoms for the first several weeks, and it may be poorly tolerated on this basis. Clonazepam (Klonopin) can be prescribed for patients who anticipate a situation in which panic may occur (0.5 to 1 mg as required). Common dosages for antipanic drugs are listed in Table 9.2-4. Table 9.2-4 Recommended Dosages for Antipanic Drugs (Daily Unless Indicated Otherwise)

Selective Serotonin Reuptake Inhibitors. All SSRIs are effective for panic disorder. Paroxetine and paroxetine CR have sedative effects and tend to calm patients immediately, which leads to greater compliance and less discontinuation, but this must be weighed against its weight gain potential. Citalopram, escitalopram (Lexapro), fluvoxamine, and sertraline are the next best tolerated. Anecdotal reports suggest that patients with panic disorder are particularly sensitive to the activating effects of SSRIs, particularly fluoxetine, so they should be given initially at small dosages and titrated up slowly. At therapeutic dosages—for example, 20 mg a day of paroxetine—some patients may experience increased sedation. One approach for patients with panic disorder is to give 5 or 10 mg a day of paroxetine or 12.5 to 25 mg of paroxetine CR for 1 to 2 weeks and then increase the dosage by 10 mg of paroxetine or 12.5 mg of paroxetine CR a day every 1 to 2 weeks to a maximum of 60 mg of paroxetine or 62.5 mg of paroxetine CR. If sedation becomes intolerable, then taper the paroxetine dosage down to 10 mg a day of paroxetine or 12.5 mg of paroxetine CR and switch to fluoxetine at 10 mg a day and titrate upward slowly. Other strategies can be used based on the experience of the clinician. Benzodiazepines. Benzodiazepines have the most rapid onset of action against panic, often within the first week, and they can be used for long periods without the development of tolerance to the antipanic effects. Alprazolam has been the most widely used benzodiazepine for panic disorder, but controlled studies have demonstrated equal efficacy for lorazepam (Ativan), and case reports have also indicated that clonazepam may be effective. Some patients use benzodiazepines as needed when faced with a phobic stimulus. Benzodiazepines can reasonably be used as the first agent for treatment of panic disorder while a serotonergic drug is being slowly titrated to a therapeutic dose. After 4 to 12 weeks, benzodiazepine use can be slowly tapered (over 4 to 10 weeks) while the serotonergic drug is continued. The major reservation among clinicians regarding the use of benzodiazepines for panic disorder is the potential for dependence, cognitive impairment, and abuse, especially after long-term use. Patients should be instructed not to drive, abstain from alcohol or other CNS depressant medications, and avoid operating dangerous equipment while taking benzodiazepines. Whereas benzodiazepines elicit a sense of well-being, discontinuation of benzodiazepines produces a well-

documented and unpleasant withdrawal syndrome. Anecdotal reports and small case series have indicated that addiction to alprazolam is one of the most difficult to overcome, and it may require a comprehensive program of detoxification. Benzodiazepine dosage should be tapered slowly, and all anticipated withdrawal effects should be thoroughly explained to the patient. Tricyclic and Tetracyclic Drugs. At the present time, SSRIs are considered the first-line agents for the treatment of panic disorder. Data, however, show that among tricyclic drugs, clomipramine and imipramine (Tofranil) are the most effective in the treatment of panic disorder. Clinical experience indicates that the dosages must be titrated slowly upward to avoid overstimulation and that the full clinical benefit

requires full dosages and may not be achieved for 8 to 12 weeks. Some data support the efficacy of desipramine (Norpramin), and less evidence suggests a role for maprotiline (Ludiomil), trazodone (Desyrel), nortriptyline (Pamelor), amitriptyline (Elavil), and doxepin (Adapin). Tricyclic drugs are less widely used than SSRIs because the tricyclic drugs generally have more severe adverse effects at the higher dosages required for effective treatment of panic disorder. Monoamine Oxidase Inhibitors. The most robust data support the effectiveness of phenelzine (Nardil), and some data also support the use of tranylcypromine (Parnate). MAOIs appear less likely to cause overstimulation than either SSRIs or tricyclic drugs, but they may require full dosages for at least 8 to 12 weeks to be effective. The need for dietary restrictions has limited the use of MAOIs, particularly since the appearance of the SSRIs. Treatment Nonresponse. If patients fail to respond to one class of drugs, another should be tried. Recent data support the effectiveness of venlafaxine. The combination of an SSRI or a tricyclic drug and a benzodiazepine or of an SSRI and lithium or a tricyclic drug can be tried. Case reports have suggested the effectiveness of carbamazepine (Tegretol), valproate (Depakene), and calcium channel inhibitors. Buspirone may have a role in the augmentation of other medications but has little effectiveness by itself. Clinicians should reassess the patient, particularly to establish the presence of comorbid conditions such as depression, alcohol use, or other substance use. Duration of Pharmacotherapy. When it becomes effective, pharmacological treatment should generally continue for 8 to 12 months. Data indicate that panic disorder is a chronic, perhaps lifelong, condition that recurs when treatment is discontinued. Studies have reported that 30 to 90 percent of patients with panic disorder who have had successful treatment have a relapse when their medication is discontinued. Patients may be likely to relapse if they have been given benzodiazepines and the benzodiazepine therapy is terminated in a way that causes withdrawal symptoms. Cognitive and Behavior Therapies Cognitive and behavior therapies are effective treatments for panic disorder. Various reports have concluded that cognitive and behavior therapies are superior to pharmacotherapy alone; other reports have concluded the opposite. Several studies and reports have found that the combination of cognitive or behavior therapy with pharmacotherapy is more effective than either approach alone. Several studies that included long-term follow-up of patients who received cognitive or behavior therapy indicate that the therapies are effective in producing long-lasting remission of symptoms.

Cognitive Therapy. The two major foci of cognitive therapy for panic disorder are instruction about a patient’s false beliefs and information about panic attacks. The instruction about false beliefs centers on the patient’s tendency to misinterpret mild bodily sensations as indicating impending panic attacks, doom, or death. The information about panic attacks includes explanations that when panic attacks occur, they are time limited and not life threatening. REFERENCES Cougle JR, Feldner MT, Keough ME, Hawkins KA, Fitch KE. Comorbid panic attacks among individuals with posttraumatic stress disorder: Associations with traumatic event exposure history, symptoms, and

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