# Generalised anxiety disorder in adults – diagnosis and management

**Key concepts:**

- Anxiety disorders are the most frequently seen mental disorders in primary care
- Generalised anxiety disorder (GAD) is one of the most common anxiety disorders
- Up to half of people with major depression also meet the criteria for GAD
- Psychological and drug therapies are equally effective in the treatment of GAD but the relapse rate for psychological therapies may be lower
- A wide range of behavioural and problem solving psychological approaches can be effective for patients with anxiety disorders. Cognitive behavioural therapy (CBT) is the most widely used psychological therapy and may be useful for some patients with GAD
- SSRIs are the first line option for drug treatment of GAD

### Anxiety disorders are common

Anxiety is a normal human emotion. It becomes a disorder when it is of greater intensity or duration than would be normally expected and if it leads to impairment or disability. Anxiety may range from mild and transient, with no effect on daily function, to severe and persistent with significant impact on function and quality of life.[1]

Anxiety disorders are the most frequently seen mental disorders in primary care, followed by depression. In a New Zealand General Practice study, the annual prevalence of mental disorder was 21% for any anxiety disorder and 18% for any depressive disorder.[2]

Anxiety disorders are usually more common in women,[3] however individual disorders differ in their gender distribution, e.g. obsessive compulsive disorder is almost as common in men as women.[1] Older adults are less likely to be affected by anxiety disorders because they often can adapt more quickly to cope with stressful tasks.[4]

People with anxiety disorders are often frequent users of medical services and are at increased risk of developing substance dependence and attempting suicide.[3, 5]

### Which anxiety disorder is most likely?

There are a wide range of anxiety disorders (see page 26) and presentation can vary. Some people present concerned about anxiety or stress, while others may present with addiction or social problems. Symptoms can be vague and may include sleeplessness, headache, dizziness, gastrointestinal disturbance or other somatic symptoms.[6]

Conditions that cause similar symptoms to anxiety should be considered. This includes hyper- and hypothyroidism, angina, asthma, depression and substance misuse e.g. caffeine, amphetamines, cannabis, cocaine. Some medications also cause symptoms of anxiety e.g. anticholinergics and toxicity from digoxin.[6, 7]

If anxiety is suspected then discussion around the following points may be helpful:

- The start of the anxiety symptoms (many patients delay seeking treatment for years)
- Associations with life events or trauma
- The nature of the anxiety (e.g. worry, avoidance or obsession)
- The impact of anxiety on daily function
- Medication use
- Alcohol, caffeine and cannabis intake

An algorithm can be used to determine which anxiety disorder is most likely (Figure 1).

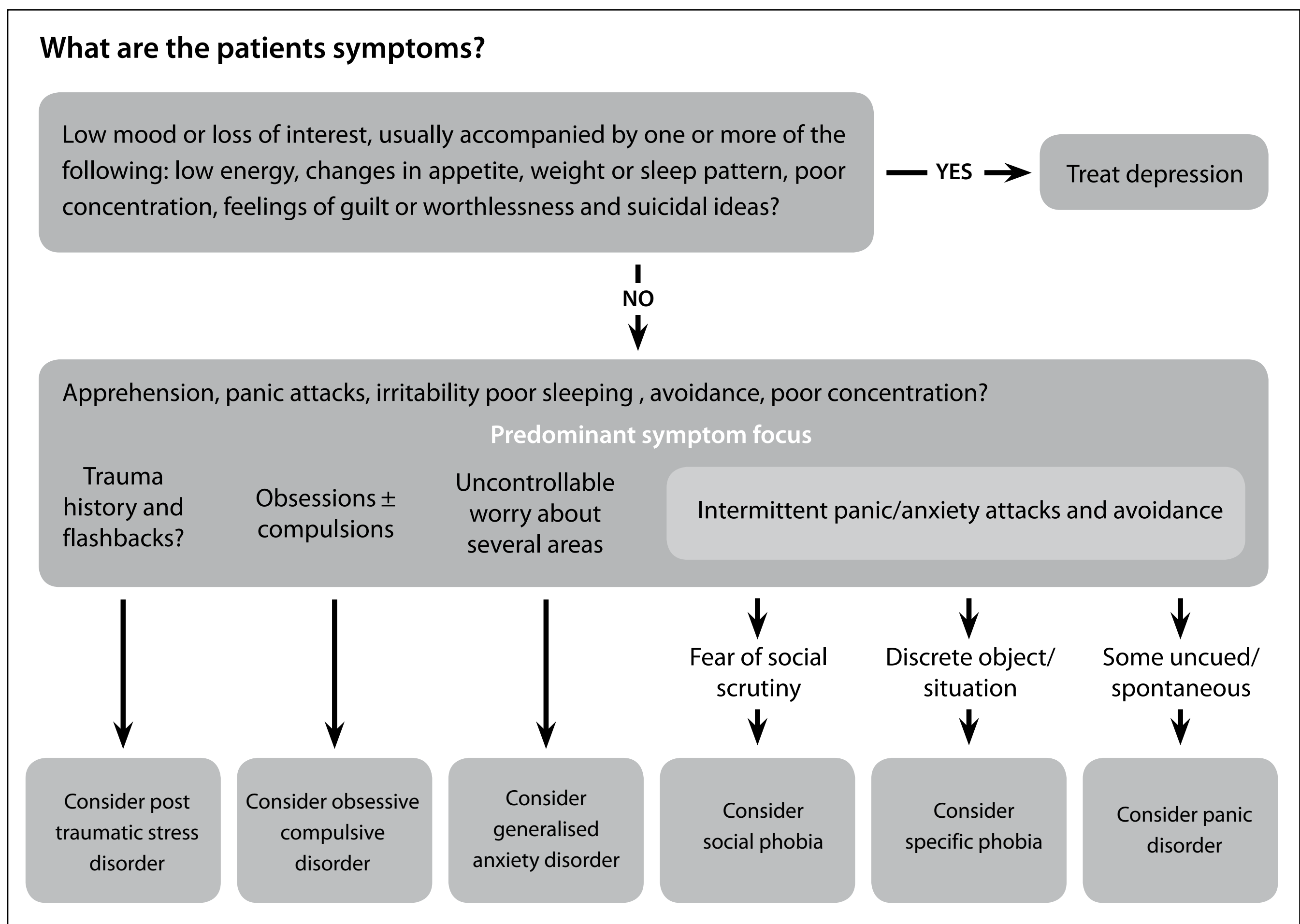


**Figure 1:** Exploration of suspected anxiety disorder [1,8]

# Generalised anxiety disorder is one of the most common anxiety disorders

Generalised anxiety disorder (GAD) is one of the most common anxiety disorders seen in primary care.[7] It is characterised by excessive and inappropriate worrying that causes significant distress or impairment. Recovery from GAD can be less likely than recovery from major depression.[1]

## Diagnosis of generalised anxiety disorder

The DSM-IV diagnostic criteria are used for a formal diagnosis of GAD (see sidebar). The Generalised Anxiety Disorder Scale (GAD7, Figure 2) can be used to assess severity.

### Anxiety and depression often coexist

Approximately 35 to 50% of people with major depression also meet the criteria for GAD.[9] When there is a diagnosis of both depression and anxiety, or if depression follows an anxiety disorder, this usually indicates a more severe anxiety disorder with a poorer prognosis.[1] If anxiety symptoms arise as a consequence of depression, effective treatment of the depression will often relieve the anxiety symptoms.[1]

### Suicide risk

Anxiety disorders are associated with a significantly increased risk of suicidal behaviour. Rates of suicide and suicide attempts are reported as being ten times higher in people with anxiety disorders, than in the general population. Co-existing mental disorders further increase this risk.[6]

## Treating generalised anxiety disorder

Treatment is indicated for most people with GAD. Less intensive interventions are required for those with fewer or less severe symptoms.

The decision whether to treat may be based on:[1]

- Severity and persistence of symptoms
- Level of disability and impact on social functioning
- Co-existing mental or physical disorders
- Current medications

### Which treatment?

Treatment of GAD may involve psychological therapy, drug therapy or a combination of both. Psychological and drug therapies are equally effective in the treatment of GAD. However the relapse rate for psychological therapies may be lower.[10] It is recommended that initially, either psychological or drug therapy are used alone as there is no evidence that using them together is more effective.[10]

Several factors determine which treatment is chosen:[5, 6, 10]

- Patient's preference and motivation
- Patient's response to any previous treatments
- Availability and cost of psychological therapy
- Patient's ability to engage in treatment (e.g. certain cognitive-behavioural therapies may be unsuitable for patients with significant cognitive impairment)
- Adverse drug effects
- Onset of efficacy

### Psychological therapies for generalised anxiety disorder

A wide range of behavioural and problem solving psychological approaches can be effective for patients with anxiety disorders.[11] Cognitive behavioural therapy (CBT) is the most widely used and may be useful for some patients with GAD.[6, 7, 10]

## DSM-IV diagnostic criteria for GAD

1. Excessive anxiety and worry about a number of events or activities, occurring more days than not for at least six months, that are out of proportion to the likelihood or impact of feared events.
2. The worry is pervasive and difficult to control
3. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past six months):
   - Restlessness or feeling keyed up or on edge
   - Being easily fatigued
   - Difficulty concentrating or mind going blank
   - Irritability
   - Muscle tension
   - Sleep disturbance (difficulty falling or staying asleep or restless unsatisfying sleep)
4. The anxiety, worry or physical symptoms cause clinically significant distress or impairment in social, occupational or other important areas of functioning.

**Figure 2:** Generalised Anxiety Disorder Scale (GAD-7)

| **Generalised Anxiety Disorder Scale (GAD-7)** | | | | |
|---|---|---|---|---|
| Over the last two weeks, how often have you been bothered by the following problems? | | | | |
| | Not at all | Several days | More than half the days | Nearly everyday |
| 1. Feeling nervous, anxious or on edge | 0 | 1 | 2 | 3 |
| 2. Not being able to stop worrying | 0 | 1 | 2 | 3 |
| 3. Worrying too much about different things | 0 | 1 | 2 | 3 |
| 4. Having trouble relaxing | 0 | 1 | 2 | 3 |
| 5. Being so restless it is hard to sit still | 0 | 1 | 2 | 3 |
| 6. Becoming easily annoyed or irritable | 0 | 1 | 2 | 3 |
| 7. Feeling afraid as if something awful might happen | 0 | 1 | 2 | 3 |

**Score**

| | |
|---|---|
| 5–9 | Mild anxiety |
| 10–14 | Moderate anxiety |
| 15–21 | Severe anxiety |

### Internet based self-directed cognitive behavioural therapy

Self-directed cognitive behavioural therapy programmes have been shown to be effective.[12] Programmes such as MoodGYM and E-couch are available online and contain modules, anxiety and depression assessments and interactive games and other activities, aiming to teach people cognitive behavioural techniques.

MoodGYM is directed at people with depression and anxiety:
**www.moodgym.anu.edu.au/welcome**

E-couch specifically addresses anxiety disorders:
**http://ecouch.anu.edu.au/welcome**

## Drug therapies for generalised anxiety disorder

For drug doses see Table 1.

### Selective serotonin reuptake inhibitors (SSRIs)

First line drug treatment of GAD is an SSRI as they are generally well tolerated and can be used long term without the risk of tolerance or abuse.[1, 7] As there is likely to be a class effect of SSRIs in treating anxiety disorders, the choice of a particular SSRI can be based on potential adverse effects, interactions and patient preference.[9] SSRIs are also effective in treating depression that can commonly co-exist with anxiety.

Treat for 12 weeks before assessing efficacy. Treatment may need to continue for 6–12 months after symptoms of anxiety have resolved.[1]

**Adverse effects of SSRIs.** Transient increases in anxiety, insomnia and nausea may be associated with SSRIs and can affect patient compliance. These adverse effects may be minimised by starting with low doses and slowly increasing to full doses as tolerated.[5] If the transient increase in anxiety is intolerable some clinicians may consider prescribing a benzodiazepine for the first few weeks of treatment. It is important to make clear to the patient that the benzodiazepine is short term therapy only.[9]

SSRIs can cause sexual dysfunction which may persist as treatment continues and is a common reason for treatment discontinuation.[9] Patients taking higher than typical maintenance doses may benefit from a dose reduction. A trial of a phosphodiesterase inhibitor such as sildenafil may be helpful for some men experiencing sexual dysfunction with SSRI use.[13]

Discontinuation symptoms such as dizziness, nausea, anxiety, vivid dreams and headache may occur on stopping an SSRI. Paroxetine is associated with a higher incidence of discontinuation symptoms because it has a short half life. Fluoxetine has a lower incidence due to its longer half life. Gradual withdrawal over several weeks is recommended.[7]

### Benzodiazepines

Benzodiazepines have been widely used for the management of GAD because they have a rapid onset of action and are effective for managing symptoms short term. However, the value of benzodiazepines in long-term treatment is less clear. There is some evidence that the outcome in relation to anxiety symptoms with long term use of benzodiazepines (e.g. after four to six weeks of treatment) may not be significantly different from placebo.[6] In addition, their main therapeutic effect is to minimise the somatic symptoms of anxiety, with less effect on the key psychological aspects.[5]

Benzodiazepines may be trialled in the treatment of GAD when other drugs or CBT have been ineffective.[4] They may also be used for a few weeks during the initiation of antidepressants when anxiety symptoms may increase, before the onset of efficacy.[5] Benzodiazepines are not effective at treating depression that often co-exists with GAD.[7]

**Adverse effects of benzodiazepines.** Sedation is a common adverse effect with benzodiazepine use. There

is also potential for cognitive impairment and ataxia in elderly people. These effects are more likely to occur with longer acting agents such as diazepam.[7] Use of short- to intermediate-acting benzodiazepines such as alprazolam, lorazepam and oxazepam avoids accumulation and resulting daytime sedation and confusion.[7]

There is a low risk of abuse when benzodiazepines are used in people without a history of dependency. However it is best to avoid using these drugs in people who have previously demonstrated addictive behaviour.[7] People with chronic pain disorders and severe personality disorders may also be at increased risk of dependency.[9]

When discontinuing benzodiazepines, the dose should be slowly tapered to avoid rebound anxiety and withdrawal symptoms. Other withdrawal options prior to tapering include switching from a shorter-acting to a longer-acting benzodiazepine or treating the patient with an antidepressant.[9]

### Buspirone

Buspirone is funded on special authority for use as an anxiolytic when other agents are contraindicated or have failed. It is considered second line, after antidepressants, because it has no impact on co-existing depression.[7] Buspirone is as effective as benzodiazepines in the treatment of GAD,[5] but may be less effective when used in people who have recently been taking benzodiazepines.[14]

The advantages of using buspirone rather than a benzodiazepine include lack of withdrawal symptoms and low potential for abuse or physical dependence. It also does not increase the effects of alcohol or sedative hypnotics.[9]

**Table 1:** Drug doses for the treatment of generalised anxiety disorder[7, 9]

| Drug | Starting dose | Usual dose |
|---|---|---|
| **Selective serotonin reuptake inhibitors (SSRIs)** | | |
| Citalopram | 10–20 mg daily | 20–60 mg daily |
| Fluoxetine | 10–20 mg daily | 20–60 mg daily |
| Paroxetine | 10–20 mg daily | 20–60 mg daily |
| **Tricyclic antidepressants (TCAs)** | | |
| Imipramine | 25–50 mg daily | 100–300 mg daily |
| Clomipramine | 25 mg daily | 100–250 mg daily |
| **Benzodiazepines** | | |
| Alprazolam | 0.25–0.5 mg, 3 times daily | 0.5–4 mg daily |
| Lorazepam | 0.5–1 mg, 3 times daily | 0.5–2 mg, 3 times daily |
| Oxazepam | 10 mg, 3 times daily | 10–30 mg, 3–4 times daily |
| Diazepam | 2 mg, 2–4 times daily | 2–5 mg, 2–4 times daily |
| **Other agents** | | |
| Buspirone | 5 mg, 3 times daily | 20–30 mg daily, given in 2–3 divided doses (max 60 mg) |

## Types of anxiety disorders[1, 5]

There are a wide range of anxiety disorders in addition to GAD and people can be affected by more than one.[6] The majority of these disorders have an annual prevalence of approximately 3% in a New Zealand general practice setting.[2]

### Panic disorder

Panic attacks are unexpected discrete periods of intense fear or discomfort. Typically panic attacks reach their peak within ten minutes and last 30–45 minutes. Often patients may feel that they are experiencing a serious medical condition such as a myocardial infarction. Panic disorder is characterised by recurrent panic attacks.

### Agoraphobia

About two-thirds of people with panic disorder develop agoraphobia. This is a fear of being in places or situations from which escape might be difficult should a panic attack occur, including being in a crowd, being outside the home or using public transport.

### Social phobia (social anxiety disorder)

Social phobia is characterised by marked, persistent and unreasonable fear of being observed or evaluated negatively by other people in social or performance situations e.g. speaking to unfamiliar people, eating in public.

### Specific phobia

Specific phobia is characterised by excessive or unreasonable fear of objects (e.g. spiders, snakes) or situations (e.g. flying, heights, seeing blood). This type of anxiety is significantly more common in women than men.[1]

### Post-traumatic stress disorder (PTSD)

Post-traumatic stress disorder develops after exposure to an event causing psychological trauma e.g. actual or threatened serious injury to self or others. The condition is characterised by recurrent and distressing recollections of the event, nightmares and/or a sense of reliving the experience with illusions or hallucinations. People often make efforts to avoid activities or thoughts associated with the trauma. Hyper-arousal symptoms such as disturbed sleep, hypervigilance and an exaggerated startle response are also associated with PTSD.

### Obsessive-compulsive disorder (OCD)

Obsessive-compulsive disorder is characterised by recurrent obsessions and/or compulsions that cause impairment in terms of distress, time or interference with functioning. Common obsessions relate to contamination, accidents and sexual or religious preoccupations. Common compulsions include washing, checking, cleaning, counting and touching.

### Tricyclic antidepressants

The tricyclic antidepressants imipramine and clomipramine have been found to be effective in GAD. They are however considered second line agents as they are less well tolerated and are more toxic in overdose than SSRIs.[7]

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### Beta-blockers

Propranolol is not recommended for the treatment of GAD. It is no more effective than placebo.[6]

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