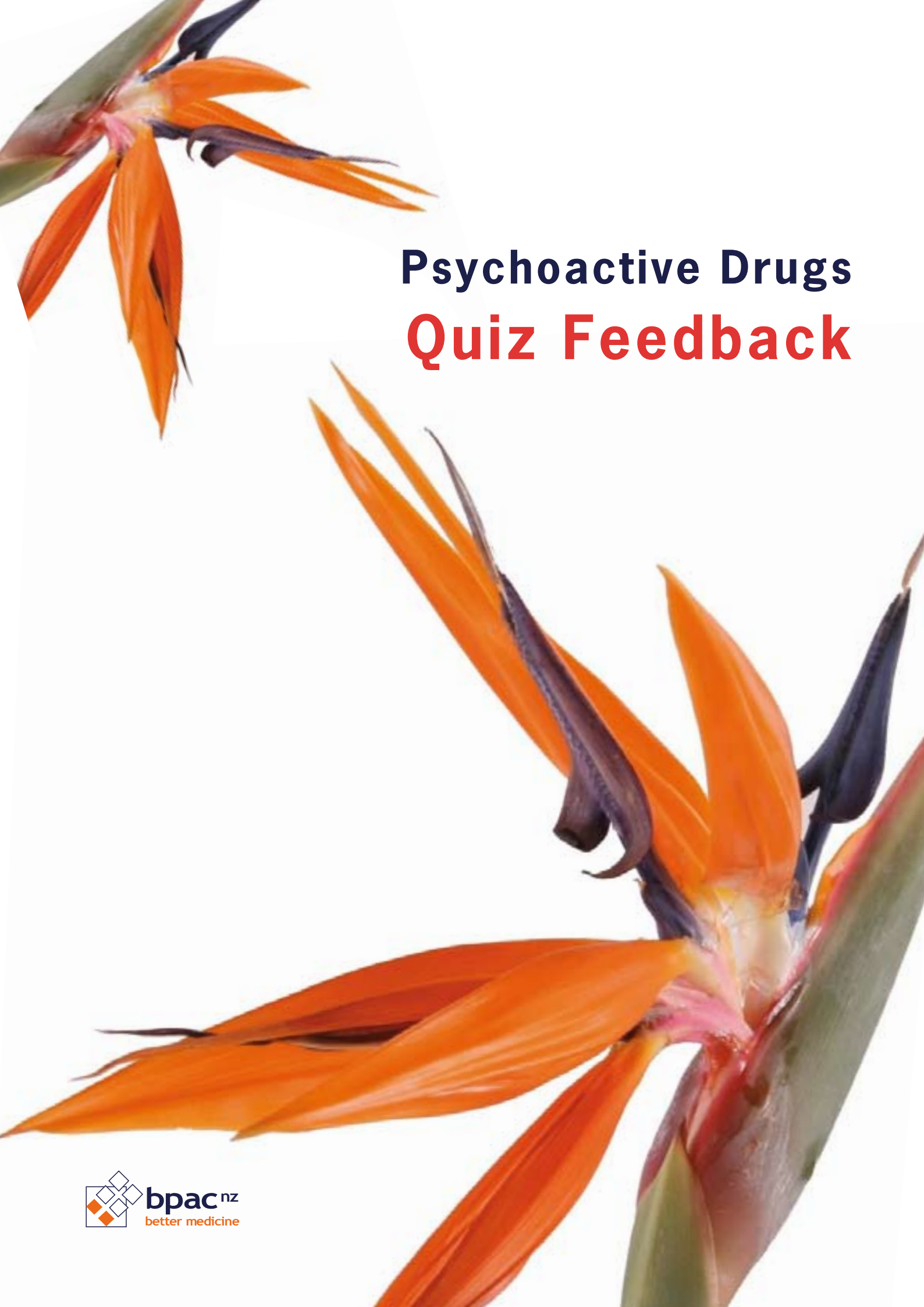
Psychoactive Drugs

Quiz Feedback



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We are sorry you did not return a quiz to us. It was a difficult one; first, because these drugs are usually initiated in secondary care but monitored in primary care and also because many of the recommendations around monitoring of these drugs is consensus based. The responses show good knowledge of these issues around the prescribing and monitoring of psychoactive drugs.

Psychoactive drugs can cause serious problems such as toxicity associated with Lithium treatment and the metabolic disturbances associated with antipsychotics. Practices usually have only a few people on these drugs and they may be reluctant attenders. Clinicians need to make good use of recall systems in their practice management software to recall people on psychoactive drugs on a planned timetable.

Please let us know if there is any way we can make our case studies more useful to you. We want our resources to be helpful with your day-to-day clinical practice. We would be pleased to receive any suggestions that you have.
If you have any questions please email these to us.

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Quiz

Psychoactive Drugs

1. After adjusting the dose of lithium the serum level should be checked after

   - ☐ 2 days
   - ☐ 3 days
   - ☐ 5 days
   - ☐ 7 days
   - ☐ 10 days

2. Which one of the following drugs or conditions is not linked to alteration of serum lithium levels?

   - ☐ Enalapril
   - ☐ High fat diet
   - ☐ Frusemide
   - ☐ Crash Dieting
   - ☐ Overhydration

3. Once a patient's mental state and serum lithium level are stable the level should be re-checked every

   - ☐ Month
   - ☐ 3 months
   - ☐ 6 months
   - ☐ 12 months

4. Which one of the following statements about lithium induced thyroid disorders is correct?

   - ☐ Hyperthyroidism is more common than hypothyroidism
   - ☐ High daily doses of lithium increase the risk of thyroid disorders
   - ☐ Thyroid disorders are more commonly seen in men than women
   - ☐ Lithium dose reduction is often an effective management
   - ☐ TSH, T4 should be checked every 3 months

5. Which one of the following is the most appropriate indication for the use of an antipsychotic in the treatment of symptoms associated with dementia?

   - ☐ Aggression
   - ☐ Anxiety
   - ☐ Restlessness
   - ☐ Insomnia
   - ☐ Fidgeting

6. Which of the following drugs is associated with the greatest risk of diabetes in patients with schizophrenia?

   - ☐ Haloperidol
   - ☐ Risperidone
   - ☐ Clozapine
   - ☐ Quetiapine

7. Which of the following drugs is associated with the greatest weight gain in patients with schizophrenia?

   - ☐ Chlorpromazine
   - ☐ Haloperidol
   - ☐ Risperidone
   - ☐ Olanzapine

8. Select the statement about ADHD that is true

   - ☐ Symptoms of ADHD usually disappear during the teens
   - ☐ The use of stimulant medication by children encourages drug abuse
   - ☐ Annual trial periods off stimulant medication are recommended
   - ☐ There is good evidence that behavioural and alternative therapies are as effective as stimulant medication

9. A seven year-old boy has recently started methylphenidate for ADHD. He says the tablets are making it difficult for him to sleep and giving him a headache, which is spoiling his day at school. Would you

   - ☐ Discontinue the tablets and recommend behavioural therapy
   - ☐ Reassure him that the symptoms will most likely go away
   - ☐ Discontinue the tablets and recommend a change to dexamphetamine
   - ☐ Arrange for an urgent specialist opinion

Feedback

From the GP Panel and Commentary from Professor Pete Ellis

1. **After adjusting the dose of lithium the serum level should be checked after**

	You	Your Peers	GP Panel
2 days		1%	
3 days		2%	
5 days		93%	✓
7 days		2%	
10 days		1%	

GP Panel: The recommended time to check the serum level after modifying the dose is 5 days. The panel commented that this may not always fit with the practicalities of everyday practice and a range of 3 to 7 days is acceptable. However, checking before 3 days does not give enough time for lithium levels to reach a steady state (the concentration of lithium may still be increasing) and waiting for longer than 7 days increases the risk of unacceptable high levels escaping early detection.

Expert commentary: *I think 4 days is too short, I could settle for 4 – the risk is that the level may still appear low (or high, if reducing already) and so lead to inappropriate further adjustment, followed by an overshoot. If the plasma level is high, it is very likely to be symptomatic. So weekly adjustment, in the non-acute setting, is probably fine.*

2. **Which one of the following drugs or conditions is not linked to alteration of serum lithium levels?**

	You	Your Peers	GP Panel
Enalapril		4%	
High fat diet		79%	✓
Frusemide		2%	
Crash Dieting		1%	
Overhydration		14%	

GP Panel: All of the drugs and conditions listed except for 'high fat diet' are associated with alteration of serum lithium levels. The three drugs most often implicated in increasing serum lithium levels are ACE inhibitors, NSAIDs and diuretics.

Changes in hydration, under or over, and crash diets can also have significant effects on serum lithium levels. Extremes of behaviour, which accompany manic episodes can lead to excessive exercise patterns or extreme diets.

Expert commentary: *I agree*

3. **Once a patient's mental state and serum lithium level are stable the level should be re-checked every**

	You	Your Peers	GP Panel
month		1%	
3 months		96%	✓
6 months		2%	
12 months		<1%	

GP Panel: The GP panel were very interested in the recommendations for the routine monitoring of serum levels and the physiological parameters for patients on lithium. They commented that monitoring was usually done less frequently in practice.

The panel suggested that the recommendations, which are consensus and not evidence based, were recommendations for optimal monitoring and should not be considered minimal standards of care. For example they were not sure what is to be gained from an annual ECG for people over the age of 45 years.

The recommendations were taken from British, Australian and New Zealand guidelines, which were indeed consensus based. Testing frequency will need adjusting to individual circumstances but does need to be thoughtfully planned. Changes in lithium levels can easily occur because of changes discussed in the previous question.

Expert commentary: *If one aims for three months, one is likely to achieve six monthly. I agree that six monthly would be adequate – provided it happened!*

ECG – there are links between arrhythmias and lithium. Annual ECG without other evidence of cardiac disease is probably also in the 'optimum' basket.

4. **Which one of the following statements about lithium induced thyroid disorders is correct?**

	You	Your Peers	GP Panel
Hyperthyroidism is more common than hypothyroidism		2%	
High daily doses of lithium increase the risk of thyroid disorders		84%	✓
Thyroid disorders are more commonly seen in men than women		1%	
Lithium dose reduction is often an effective management		6%	
TSH, T4 should be checked every 3 months		6%	

GP Panel: High daily doses (or more correctly, high serum levels) can increase the risk of thyroid disorders, usually hypothyroidism although hyperthyroidism can occur rarely. Patients on lithium are often benefiting from the medication and if hypothyroidism does occur it is usual practice to continue the lithium and add thyroid replacement.

Monitoring for thyroid disorders involves performing a TSH at three months and repeating six monthly.

Expert commentary: *The risk is about 1% per annum. Onset is usually gradual. I think every six months would suffice. If TSH costs approximately $10, that makes detecting one case a year cost 100, 200 or 400 times that.*

5. Which one of the following is the most appropriate indication for the use of an antipsychotic in the treatment of symptoms associated with dementia?

	You	Your Peers	GP Panel
Aggression		97%	✓
Anxiety		1%	
Restlessness		<1%	
Insomnia		<1%	
Fidgeting		0%	

GP Panel: Aggression and risk of self-harm are the main indications for the use of antipsychotics in dementia. The panel pointed out that GPs are very much guided by caregivers, voluntary and professional, when assessing the behaviour of people with dementia. However decisions to prescribe antipsychotics for people with dementia are not easy.

Antipsychotics do not improve cognition and may have adverse effects, such as sedation leading to falls or pneumonia. On the other hand agitation, wandering and restlessness may increase the risk of self-harm in some environments.

Decisions need to be made carefully on a case-by-case basis.

Expert commentary: *I cannot find any good evidence that older antipsychotics make a difference. There is evidence for risperidone and olanzapine, but also a significant 3-fold increase in the risk of stroke. At least a careful balancing of risks has to be carried out.*

6. Which of the following drugs is associated with the greatest risk of diabetes in patients with schizophrenia?

	You	Your Peers	GP Panel
Haloperidol		4%	
Risperidone		2%	
Clozapine		89%	✓
Quetiapine		2%	

GP Panel: Of the antipsychotics, clozapine and olanzapine are associated with the highest increase in risk of diabetes. However panel members felt that in their own practices there appears to be higher incidence of diabetes associated with most antipsychotics.

Expert commentary: *There is increased risk with all antipsychotics (even the old ones, which wasn't recognised before) but the risk is greatest with clozapine and olanzapine.*

7. Which of the following drugs is associated with the greatest weight gain in patients with schizophrenia?

	You	Your Peers	GP Panel
Chlorpromazine		17%	
Haloperidol		<1%	
Risperidone		2%	
Olanzapine		79%	✓

GP Panel: The panel commented that the use of olanzapine appears to be increasing. They were concerned that we are still early in the natural history of the use of the new generation antipsychotics and we still do not really know what the outcomes will be of related metabolic adverse effects such as elevated glucose and weight gain.

As with lithium, the need for monitoring for people on antipsychotic medication falls on primary care. However individual practices often have few people on these drugs and it is easy to overlook.

Expert commentary: *The risks of the metabolic syndrome with new antipsychotics in general is now well recognised by psychiatrists and one would increasingly expect to see specific mention of monitoring in management plans on discharge and in joint care plans.*

8. Select the statement about ADHD that is true.

	You	Your Peers	GP Panel
Symptoms of ADHD usually disappear during the teens		6%	
The use of stimulant medication by children encourages drug abuse		2%	
Annual trial periods off stimulant medication are recommended		89%	✓
There is good evidence that behavioural and alternative therapies are as effective as stimulant medication		2%	

GP Panel: Annual trial periods off medication are recommended for children with ADHD. The panel pointed out that this is often subject to parental choice. Some parents are keen to get their children off medication; others after one hectic drug free period will want to avoid any others.

Symptoms of ADHD tend to continue into the teenage years although hyperactivity may become less dominant. Children with ADHD who continue with stimulant medication into their teens are less likely to have drug or alcohol problems than those who abandon treatment.

9. A seven year-old boy has recently started methylphenidate for ADHD. He says the tablets are making it difficult for him to sleep and giving him a headache, which is spoiling his day at school. Would you

	You	Your Peers	GP Panel
Discontinue the tablets and recommend behavioural therapy		2%	
Reassure him that the symptoms will most likely go away		73%	✓
Discontinue the tablets and recommend a change to dexamphetamine		5%	
Arrange for an urgent specialist opinion		18%	

GP Panel: The GP panel felt this would be an unusual situation in practice. Children who have recently started methylphenidate are usually still under regular review by specialist services. Although the child's symptoms are probably mild adverse effects, which will settle in time, members of the panel would still be likely to check with the specialist service before making any decisions.

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