



From the Clinical Director

Bipolar disorder is a chronic mental health condition characterised by distinct episodes of mania and depression. It occurs in approximately 1-2% of the population with the highest prevalence in young adults. If not properly treated, the condition may have a significant impact on the relationships, career and self-esteem of those affected. The exact cause of bipolar disorder is not clearly understood and may involve a combination of factors including family history, genetics and environmental triggers. Overlapping anxiety disorder is thought to occur in around 60% of those affected and approximately 25-30% of sufferers also report alcohol or substance abuse.

There are two main types of bipolar disorder, bipolar I and bipolar II disorder. The specific pattern and duration of symptoms experienced by a person will determine which type of bipolar disorder is diagnosed. If a patient has had a least one manic episode at any stage in their lifetime, they are considered to have bipolar I disorder. For a diagnosis of bipolar II disorder, the patient must have had at least one major depressive episode and at least one hypomanic episode. Bipolar I disorder affects men and women equally however bipolar II disorder is more common in women.

The clinical features of mania are inflated, expansive or irritable mood, accelerated speech, racing thoughts, increased activity and reduced sleep. Symptoms may occur abruptly and result in reckless, risk-taking behaviour, grandiose thoughts and increased sexual drive.

The term hypomania refers to the same set of symptoms as in a manic episode but are less severe and occur for a shorter duration of time. Mania occurring for the first time, particularly in later life, may be secondary to other causes including medications. The most common culprits include levodopa and corticosteroids such as prednisolone.

Most patients with bipolar disorder will experience periods of depression between episodes of mania or hypomania. Depression will typically manifest with symptoms of low mood, feelings of hopelessness, extreme sadness and lack of interest and pleasure in daily activities. Some people may also experience episodes of mania and depression that occur simultaneously. This is called a mixed episode.

The overall treatment aims for bipolar disorder are to treat and prevent acute episodes of mania or depression. There are three main classes of medications used to treat bipolar disorder: antipsychotics, mood stabilisers and anti-depressants. Over 90% of people with bipolar disorder will experience recurrent episodes of mania or depression. Preventative treatment is generally required following an acute episode if a patient has had two or more previous episodes, or if the first episode was severe. Patients who fail to respond to therapy should be assessed for sub-therapeutic drug concentrations (if appropriate), poor medication adherence and illicit substance abuse.

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In the residential aged care setting the management of people with bipolar affective disorder is often complex. People frequently have significant medical comorbidities that can impact upon the medications that are used to treat bipolar disorder. Similarly, the medications used for the management of bipolar disorder can have a major impact upon significant comorbidities. For example, introduction of antipsychotic medication during a major depressive or manic episode can create major destabilisation of blood glucose control in all those who have diabetes. Because it is not always possible to avoid introducing additional therapies for the management of bipolar disorder it is usually the case that we need to respond in those circumstances by adjusting the management of comorbid illnesses - for example modifying the dose of insulin or other hypoglycaemic agents.

Older people are more sensitive to the effects of mental illness, and the management of bipolar disorder can be significantly demanding upon staff time. Furthermore, in the context of an acute mood disturbance a resident who is significantly agitated or disturbed, can affect the safety of staff for other residents. A medication review can be very helpful in the management of acute mood disturbance for people with bipolar disorder. As well as adjustments to the medications, additional investigations and lifestyle modifications may also be advantageous.

Dr Chris Alderman, Director of Clinical Excellence, Ward MM.



Feature Article:

Drug Therapy for Bipolar Disorder

A discussion of the treatment of bipolar disorder can be divided into either treatment of acute mania or depression and prophylaxis of bipolar episodes. Treatment will typically involve a combination of pharmacological and non-pharmacological therapies such as cognitive behavioural therapy. As previously mentioned, there are three main classes of medications used in the management of bipolar disorder: antipsychotics, mood stabilisers and antidepressants.

Antipsychotics are useful both in the treatment of acute mania and for the prophylaxis of bipolar episodes. Antipsychotics can be divided into two classes: first generation or second generation agents. Newer, second generation agents are generally considered first line for both acute mania and prophylactic therapy. This class of antipsychotics is preferred due to its lower incidence of extrapyramidal adverse effects. Examples include risperidone, olanzapine, quetiapine, aripiprazole, ziprasidone, asenapine and paliperidone. Haloperidol is a first generation antipsychotic and is sometimes used to treat acute mania. Its role is however limited due to the risk of tardive dyskinesia with prolonged treatment and the high prevalence of Parkinsonism.

Adverse effects associated with antipsychotics may be troublesome, particularly in elderly patients. Sedation, orthostatic hypotension and movement-related effects are common and may increase the risk of falls and subsequent complications such as fractures and subdural haematomas. Some antipsychotics are also known to prolong the QT interval which may predispose patients to serious cardiac arrhythmias. Long term use may cause weight gain, elevated blood glucose levels and elevated serum lipids which may increase the risk of stroke and cardiovascular events. Routine monitoring of ECG, weight, blood glucose and lipids is recommended.

Lithium is a mood stabiliser and has the most extensive evidence for use in the prophylaxis of bipolar disorder. Carbamazepine and sodium valproate may be used as alternatives when lithium is considered inappropriate or

inadequate for good control. Lamotrigine may be useful in the prophylaxis of depressive but generally not for manic episodes. Lithium is known as a narrow therapeutic index medication and requires routine serum concentration monitoring to maintain therapeutic drug levels and prevent toxicity. Guidelines for bipolar prophylaxis suggest a target serum lithium concentration of 0.4-0.1nmol/L. Lithium is excreted by the kidneys and serum concentrations may be altered by medications which effect renal function. Examples include diuretics, ACE inhibitors, angiotensin II receptor blockers and NSAIDs.

Elderly patients will typically require a lower lithium dose due to aged-related decline in renal function. Changes in sodium/fluid intake or increased sodium/fluid loss through vomiting, diarrhoea or alcohol intake may also alter serum lithium concentrations. Urinary alkalinisers such as Ural are best avoided as they contain sodium bicarbonate which may reduce lithium concentrations and effectiveness.

Signs and symptoms of lithium toxicity range from blurred vision, diarrhoea, nausea, vomiting, tremor, drowsiness, flu-like symptoms and ataxia to seizures, coma and death. Routine monitoring of lithium levels is recommended every 3-6 months or if there is a change in medications which may alter lithium concentrations. Lithium often causes hypothyroidism and thyroid function should be monitored every 6-12 months. Lithium may increase the risk of serotonin toxicity particularly when combined with other medications that are also associated with this risk i.e. antidepressants, tramadol, fentanyl.

Antidepressants may be useful for acute episodes of depression which have failed to respond to mood stabilisers. Antidepressants may induce mania and therefore guidelines do not recommend their use as monotherapy for bipolar disorder. SSRIs appear to be the antidepressants of choice for bipolar depression. Non-pharmacological therapies which have shown benefits for preventing symptom relapse in bipolar disorder include cognitive behavioural therapy, social rhythms therapy and psychoeducation.

Duncan Yorkston, Clinical Pharmacist, Ward MM

Quick Tip

The Z drugs!

Insomnia is a relatively commonly encountered issue, both in the community and also in the aged care setting. Although it is preferable to use non-drug interventions for the management of sleep disturbance, it is also quite common for it to be necessary to use medication that assist with sleep from time to time.

For many years the benzodiazepines have been the most widely used hypnotic medications, superseding their predecessors (the barbiturates) which were far less safe and effective. Although associated with some known disadvantages the benzodiazepines remain as a relatively safe option if used with caution.

One of the most important issues associated with the benzodiazepines is the propensity to develop tolerance and dependence. With continued use over a long period of time it is clear that these agents may not be as effective as they might have been during the initial part of treatment. Moreover, abrupt continuation of treatment may be associated with a withdrawal effect.

Some years back a number of new hypnotic agents were released onto the Australian market and elsewhere in the world. Examples of these drugs include zopiclone, zolpidem, and another agent that is available in the US and elsewhere but not in Australia (zaleplon). Collectively, the newer agents came to be referred to as the "Z drugs".

There remains some conjecture as to whether these products have any clear advantages relative to the standard benzodiazepines. Some patients do refer to significantly better efficacy from these drugs but the observations are not consistent. There are some adverse effects that are not associated with benzodiazepines - for example some people treated with zopiclone develop an unpleasant metallic taste in their mouth. Zolpidem has been associated with abnormal sleep behaviours, which may include phenomena such as sleepwalking, sleep eating and other abnormal sleep behaviours.

The Z drugs do have relatively short elimination half-lives, and so are associated with less potential for residual morning sedation (and therefore falls)

These drugs are not available as subsidised benefits through the pharmaceutical benefits scheme and are generally more expensive for residents/patients. Even so, some residents do describe a strong preference for the use of these agents.

Dr Chris Alderman, Director of Clinical Excellence, Ward MM.

Latest News

WardMM Embarks on a Personalised Medicine Journey

A foundation stone on the path to personalised medicine was laid yesterday with the formal announcement that Ward MM will partner with LeafCann to research the use of medicinal cannabinoids in the treatment of BPSD.

This clinical trial will aim to determine evidence based efficacy for the use of medicinal cannabis with healthcare. Person-centred medicine is an approach tailored to each unique individual and condition, utilising identification of individualised biological and pathological differences in the absorption and metabolism of medications and adjusted to target therapeutic objectives.

Ward MM will be working with its partners to design and develop this trial in a manner which ensures key safeguards for participants whilst also optimising outcomes in their care.

Should your organisation wish to explore participation in this initiative, please contact info@wardmm.com.au.

The media release which explains more about this exciting new chapter is available here: <http://wardmm.com.au/leafcann-wardmm-announce-clinical-trial-treatment-bpsd/>

Ward MM Medication Masterclass Sydney a Success

"My first Master Class. Absolutely loved it. My favourite part was the panel."

"The whole day was very educative and insightful, I'm glad to have been a part of such an event and hope to attend more of them in the near future."

Thank you to everyone who attended and took part in the Medication Masterclass held in Sydney on the 20th December. We had a cracker of a day discussing the management of pain in the elderly. The engaged audience were given insights into exciting advancements in the sector as well as gaining an understanding of the international initiatives and considerations of this world-wide issue. An exceptional thank you to the esteemed speakers which included:

Denise Eaton (Advisor International Health, Austrade); Dr Chris Alderman (Director of Clinical Excellence, Ward MM); Dr Natalie Soulsby (Head of Clinical Operations, Ward MM); Natasha Collins (Principal Consultant, Leading Age Services Australia Ltd); Prof Andrew McLachlan (Program Director of the NHMRC Centre for Research Excellence in Medicines and Ageing and Dean of Pharmacy University of Sydney); Dr Ged Foley (CEO Sonic Clinical Services & CEO IPN Medical Centres); Elisabetta Faenza (CEO LeafCann Group); Brian Lawson (Director, Professional Affairs at Board of Pharmacy Specialties).

Notes from facilities serviced by Ward MM

It is quite common for us to receive similar enquiries from more than one facility in our network. In this section we summarise questions with a common basis – as a part of our “connect – network – share” ethos, we share the information with all of our facilities.

Q. “We recent had a resident admitted who takes lithium – what do I have to watch out for?”

A. Lithium is usually used for bipolar disorder, but sometimes also schizophrenia or treatment-resistant depression. There are two formulations, a standard-release tablet or a controlled-release capsule, that are not interchangeable. Lithium should be given with food. Lithium (an element in the periodic table) resembles sodium and is transported by the same mechanisms, and so is susceptible to anything that affects sodium or fluid levels. Dehydration via poor fluid intake, hot weather, increased activity, diuretic use, alcohol or caffeine will increase the risk of toxicity. The main thing nursing staff can do to help is ensure the resident consistently drinks an

appropriate amount of non-alcoholic, non-caffeinated fluids.

Similarly, fasting, acute illness and renal impairment can precipitate toxicity. Starting or stopping certain medications can also trigger changes in lithium levels, including ACE inhibitors, AT2 receptor blockers, diuretics, NSAIDs and sodium-containing products.

Lithium increases serotonin release and so may also interact with other medicines that affect serotonin, such as antidepressants, fentanyl and tramadol.

There is a range of adverse effects that can occur at normal lithium levels - metallic taste, nausea, diarrhoea, upper GI discomfort, weight gain, tremor, psoriasis, polyuria, hypothyroidism and hyperparathyroidism. These would need to be managed if and when they present themselves.

With mild-to-moderate toxicity, the resident may experience blurred vision, increasing diarrhoea, nausea, vomiting, muscle weakness, drowsiness, apathy, ataxia and flu-like symptoms. Were these to occur, lithium may be withheld until serum levels return to normal.

In severe toxicity, the resident may experience increased muscle tone, hyper-reflexia, myoclonic jerks, coarse tremor, dysarthria, disorientation, psychosis, seizures and coma. These require urgent medical attention and may necessitate dialysis to rapidly clear out lithium. If you suspect any of the above, contact the GP or emergency services without delay.

Concentration monitoring will generally be done routinely every few months, or more frequently if clinically indicated (during illness, changes in diet or weather, changes in dose or concomitant medicines). Blood should be collected at least 8 hours after the last lithium dose.

Andrew Wood, Regional Pharmacist Manager, Ward MM



Meet your Ward MM Team Member

Mary Mickael is a mum of two wonderful children and a wife of a kind man. She also happens to be a pharmacist practicing since 1999. Between community, hospital and clinical pharmacy, her passion has always been helping others through her knowledge and experience. This is why she joined WardMM team knowing that they excel in their clinical services and are innovative in medication management in a patient centered approach.

Most meaningful moments... receiving my children when they were born for the first time into my arms! Priceless moments!

My biggest challenge... challenging personalities. I guess some people may be more difficult to approach than others. I believe in what a wise physician once said: “The best medicine for Humans is LOVE.” Someone asked, “If it doesn't work?” He smiled and answered, “Increase the dose.”

I'd be lost without... people! I love working with others and communicating with people. Hence, I speak 3 languages. I'd lose my mind if I work alone!