ARTICLE

Prescribing psychotropic drugs to adults with an intellectual disability

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SUMMARY

Mental illness is common in people with intellectual disability. They may also have physical health problems which can affect their mental state.

Difficulties in communication can contribute to mental health problems being overlooked. These may present with changes in behaviour.

Psychological management is usually preferable to prescribing psychotropic drugs. Behavioural approaches are the most appropriate way to manage challenging behaviour.

If a drug is considered, prescribers should complete a thorough diagnostic assessment, exclude physical and environmental contributions to symptoms, and consider medical comorbidities before prescribing. Where possible avoid psychotropics with the highest cardiometabolic burden. Prescribe the minimum effective dose and treatment length, and regularly monitor drug efficacy and adverse effects.

There is insufficient evidence to support the use of psychotropics for challenging behaviour. They should be avoided unless the behaviour is severe and non-responsive to other treatments.

Introduction

The rates of mental illness among people with intellectual disability are at least 2.5 times higher than in the general population.[1] It is a significant concern that this mental illness is often undetected.[2] Challenges include communication difficulties, atypical presentations, coordinating multidisciplinary care, and the paucity of specialist intellectual disability mental health services.

The inappropriate use of psychotropics is common and includes overuse of psychotropic drugs to treat challenging behaviour, excessive dosage and duration of treatment, and polypharmacy. There is often inadequate monitoring of adverse effects.[3-5]

Non-drug management strategies

Psychological and environmental management of mental illness and challenging behaviour is preferable to using psychotropic drugs and in most situations it is indicated as a first- or second-line treatment. The evidence base supporting the use of psychological therapies for mental illness in people with intellectual disability is small but growing. There is growing evidence for the efficacy of cognitive behaviour therapy and mindfulness in the treatment of mood, anxiety disorders and obsessive compulsive disorders. Other psychotherapies, including dialectic behaviour therapy to treat personality disorders, may also be effective in some patients with mild to moderate intellectual disability. However, in cases of profound intellectual disability these approaches may not be practical.[6]

Behavioural approaches are the treatment of choice for the management of challenging behaviour. Applied behaviour analysis and the related concept of positive behaviour support have the best evidence base of all psychosocial approaches for successful management. Applied behaviour analysis conceptualises all behaviour as serving a purpose for the individual and encourages analysis and understanding of the reason for challenging behaviours (and subsequently addressing these reasons) linked with positive reinforcement of adaptive behaviours.[7] These approaches need to be tailored to the individual and implemented by professionals experienced in the area such as specialised behaviour support teams or psychologists with behaviour support training.

The challenge in clinical practice is that access to services is often limited to people with the most severe problems or there may be no service at all. In Australia, some of the current Medicare provisions for access to allied health consultations and medication management reviews are recommended.

Prescribing considerations

If a drug is considered appropriate, the prescribing principles relevant to the general population can

be modified for people with intellectual disability.[1] Additional caution is necessary due to the high number of medical comorbidities, communication barriers, and the complexity of care coordination.[1] The Box summarises key considerations when prescribing psychotropic drugs.

Comorbidity

People with intellectual disability have a significantly elevated incidence of physical health problems.[8] Unrecognised physical illness can result directly in mental illness or indirectly in challenging behaviour. Common problems include epilepsy and disorders causing pain (constipation, gastro-oesophageal reflux disease, musculoskeletal disorders and dental disease). Where possible, physical health problems should be excluded before proceeding to diagnose and treat mental illness or challenging behaviour. If urgent intervention is required, drug use should be reviewed carefully once test results are available. The physical illnesses associated with particular syndromes may also affect the choice of drug (see Table 1). For example, potential interactions with commonly co-prescribed drugs such as anticonvulsants should be considered before prescribing.

The adverse effects of each psychotropic drug should be considered carefully, particularly in people with an elevated risk of cardiometabolic disease. Monitoring in people with intellectual disability requires a holistic and multidisciplinary approach that addresses dietary, lifestyle, socioeconomic, medical

Box Key considerations when prescribing psychotropic drugs to people with intellectual disability

Before prescribing

Determine that prescription is warranted based on:

- confirmed diagnosis of mental illness for which psychotropics are indicated
- challenging behaviour that is severe and non-responsive to maximal cognitive or behavioural therapy
- potential benefits that outweigh the harm
- discussion with carer.

Develop a treatment plan detailing:

- the person's communication needs
- targeted behaviour/symptom, frequency and intensity
- method of measurement of impact of drugs on these behaviours/symptoms including how effects and adverse effects will be assessed
- all previous assessments of medical, psychiatric and functional causes of the behaviour or symptom
- past response to treatment including adverse effects
- a treatment timeline and contingency plan if ineffective.

Obtain consent from the individual or appointed decision maker.

Drug choice

Consider medical comorbidities and potential drug interactions including:

- syndromes that have an increased frequency of cardiometabolic, respiratory disorders or dementia – avoid drugs that will worsen these
- epilepsy – additional epilepsy monitoring may be required when prescribing psychotropics that lower the seizure threshold. Consider also the potential for some anticonvulsants to induce metabolic clearance of co-administered drugs. Doses may need to be adjusted accordingly.

Consider:

- expressed wishes of the person and primary carers
- monitoring requirements of the drug (e.g. blood tests) and whether the person will realistically be able to meet them
- swallowing or absorption impairments
- past response to treatment including adverse effects
- reviewing co-prescribed drugs and taking steps to reduce polypharmacy
- the cardiometabolic 'liability' of the psychotropic drug.

During treatment

Commencing treatment:

- educate the person and their support people about the psychotropic indications for treatment and adverse effects. Communication with formal and informal carers is essential given the central role they often play in monitoring and communicating drug-associated behaviour changes to medical practitioners
- obtain baseline cardiometabolic data
- commence on a low dose and increase gradually.

Monitoring treatment:

- engage the person and their support people in the monitoring process
- set regular review times and a time frame for treatment
- be aware of adverse effects that may be difficult to recognise and report
- watch for behavioural changes after starting treatment or a dose increase as this may indicate adverse effects
- monitor adverse effects on medical comorbidities.

Discontinuing treatment:

- consider discontinuation if treatment is ineffective, there are unacceptable adverse effects, discontinuation is requested, symptoms have resolved or the drug is no longer required
- taper slowly
- avoid simultaneous withdrawal of anticholinergic drugs or multiple psychotropic drugs.

Table 1 **Common medical comorbidities in people with intellectual disability that may alter the choice of psychotropic drug**

Comorbidity	Associated genetic syndromes	Prescription implications
Epilepsy	Down, Fragile X, Angelman, Tuberous sclerosis, Rett, Wolf-Hirschhorn	Exercise caution prescribing psychotropics that lower seizure threshold, e.g. clozapine, tricyclic antidepressants, venlafaxine
Obesity	Down, Turner, Angelman, Prader-Willi	Avoid psychotropics with high cardiometabolic liability as first-line treatment
Dyslipidaemia	Down, Turner, Prader-Willi	Avoid psychotropics with high cardiometabolic liability as first-line treatment
Type 2 diabetes	Down, Turner, Sotos, Prader-Willi	Avoid psychotropics with high cardiometabolic liability as first-line treatment
Hypertension	Turner, Tuberous sclerosis, Williams, Sotos, Prader-Willi	Exercise caution prescribing psychotropics known to raise blood pressure, e.g. venlafaxine, desvenlafaxine, duloxetine
Hypotension	Down	Where possible avoid psychotropics with potential to exacerbate, e.g. chlorpromazine, tricyclic antidepressants, quetiapine
Respiratory difficulties or structural airway abnormalities	Prader-Willi, Down	Where possible avoid highly sedating psychotropics that may exacerbate the risk of respiratory failure
Swallowing difficulties	Cerebral palsy	Exercise caution with psychotropics that exacerbate swallowing difficulties, e.g. clozapine, olanzapine, risperidone, quetiapine
Early onset dementia	Down	Be aware that cognitive adverse effects of some psychotropics may compound cognitive dysfunction in emerging dementia

and genetic risk factors. Potential barriers to effective cardiometabolic monitoring such as communication difficulties and fear of blood tests should be considered when prescribing. Tailored educational materials[9] for people with intellectual disability and for their formal and informal carers are freely available. These include a cardiometabolic monitoring schedule for people with intellectual disability who have been prescribed psychotropic drugs.

Psychiatric diagnosis in severe intellectual disability

Individuals with more severe levels of intellectual disability or communication difficulties may present atypically, for example with non-verbal or behavioural manifestations of psychiatric disorders. If available, assessment and management by specialised intellectual disability mental health services should be considered for people with more complex or severe levels of intellectual disability. Occasionally, with appropriate consents, psychotropic drugs may be tried when mental illness is considered likely, but is hard to verify. In this case, regular review and close monitoring is required and consultation with a specialist is recommended.

Behavioural phenotypes

Advances in genetics have brought a greater understanding of the typical patterns of behaviour and mental illness seen within many genetic syndromes (known as the 'behavioural phenotype').[10] Knowledge of the behavioural phenotype of a syndrome informs the psychiatric assessment and the need to prescribe. For example, people with Down syndrome commonly talk to themselves and this needs to be differentiated from acute psychosis. Lack of recognition of behavioural phenotypes may result in overdiagnosis of mental illness and inappropriate prescribing. Due to the complexities of diagnosis in this area, consultation with specialist intellectual disability mental health services is recommended.

Prescribing for specific mental disorders

The treatment for specific mental disorders is usually the same as in the general population. Table 2 shows some additional points to consider when prescribing psychotropics to people with mental illness and intellectual disability.

Prescribing in autism spectrum disorder

Identification of psychiatric illness in adults with autism spectrum disorder is challenging and often requires specialist input. The incidence of mental illness in autism is higher than in intellectual disability alone[11] and underdiagnosis of mental illness is a risk. Overdiagnosis is also a concern as the core features of autism can mimic mental disorders (especially psychosis, anxiety and obsessive compulsive disorders) and lead to inappropriate prescribing.

Table 2 **Considerations in prescribing for specific mental disorders**

Mental illness	Specific considerations for intellectual disability
Anxiety and associated disorders	Psychological therapies are first-line management. SSRIs are the recommended first-line drugs. Commence on a low dose and increase more slowly than in the general population. Benzodiazepines should only be used short term when required. They may paradoxically heighten agitation, impulsivity or disinhibition.
Depression	SSRIs are most commonly used in intellectual disability. However they have considerable potential for interacting with other drugs. Changes in behaviour (e.g. increased aggression, self-injury, repetitive behaviour) may indicate adverse effects or a manic switch.
Bipolar disorder – acute mania	Lithium and drugs that require regular serum monitoring should only be commenced if regular blood tests are feasible. Adjunctive short-term benzodiazepines may also be required. Prescribe lower doses for people with intellectual disability who are older or who have significant physical comorbidities. ECT may be indicated if initial treatment or subsequent strategies, such as switching psychotropics, are ineffective. Maintenance includes tailored education and supportive psychological strategies.
Schizophrenia and related psychoses	Consider potential sensitivities, monitoring issues and medical comorbidities. Adverse effects may be more likely due to the higher incidence of comorbid conditions (e.g. physical disorders, congenital anomalies). Avoid depot psychotropic administration (greater vulnerability to adverse effects such as tardive dyskinesia). Clozapine may be considered for confirmed cases of treatment-resistant psychosis. Extra precautions include: • the patient's ability to co-operate with blood tests and other monitoring • consideration of medical comorbidities such as epilepsy or elevated baseline cardiometabolic risk profile.

SSRIs selective serotonin reuptake inhibitors

There is emerging evidence that psychological strategies (especially mindfulness and cognitive behaviour therapy) have good efficacy in anxiety and depression in autism. The evidence base for psychotropic prescription for mental illness and challenging behaviour in autism is very limited. Any decision to prescribe psychotropic drugs in adults with autism spectrum disorder therefore requires careful consideration of the harms and benefits.

A Cochrane review[12] found that risperidone had short-term efficacy for irritability, social withdrawal hyperactivity, and stereotypic behaviours in children, with suggested similar benefits in adults with autism spectrum disorder. Although risperidone is listed on the Pharmaceutical Benefits Scheme (PBS) for behaviour disorders due to autism in children, its approval in adults is limited to those who commenced risperidone as a child.

There is also a Cochrane review of aripiprazole in children with autism that reported similar short-term success.[13] However, aripiprazole does not have Therapeutic Goods Administration or PBS approval for autism-related disorders.

Challenging behaviours

Despite the widespread prescribing of psychotropic drugs to treat challenging behaviour in the absence of a defined mental illness,[3] there is little robust evidence to justify this practice.[5,14,15] Reviews of clinical practice suggest that a high level of off-label prescribing occurs and that the atypical antipsychotics are most frequently prescribed, followed by selective serotonin reuptake inhibitors and mood stabilisers.[16] Given the serious cardiometabolic and other adverse effects associated with many psychotropic drugs, all prescriptions for challenging behaviour should be carefully rationalised and should meet the criteria outlined in current consensus guidelines.[17,18]

Where practical, psychotropic prescribing for challenging behaviour should occur under specialist supervision, and only when:

- the challenging behaviour is severe in nature, persistent and places the person or others at risk
- maximal non-pharmacological interventions have already been tried unsuccessfully
- a drug is likely to treat the problem behaviour
- consent for off-label prescription has been obtained, and the person and carers have been informed of any extra financial costs associated with off-label prescription.

Conclusion

Specific evidence for the efficacy of psychotropic drugs in people with intellectual disability and mental illness is lacking. In the absence of a substantial evidence base, clinicians should adapt approaches

applicable to the general population. Treating challenging behaviour with psychotropic drugs is restricted to situations where the behaviour is severe, persistent, risks harm and has not responded adequately to non-pharmacological approaches.

Clinicians should exercise extra vigilance when prescribing and monitoring psychotropic drug therapy given the high rates of medical comorbidities and communication difficulties. Engagement with the carer, family or support staff and careful monitoring of behavioural changes may help to identify emerging adverse effects. Thoughtful prescribing that accounts for diagnoses and underlying medical conditions that may be aggravated by psychotropic drugs may help to minimise adverse effects.

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FURTHER READING

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