14 - Chapter 9 Drug treatment of other psychiatric cond

01 - Borderline personality disorder (BPD)

Borderline personality disorder (BPD)

The Maudsley® Prescribing Guidelines in Psychiatry, Fifteenth Edition. David M. Taylor, Thomas R. E. Barnes and Allan H. Young. © 2025 David M. Taylor. Published 2025 by John Wiley & Sons Ltd. Chapter 9 Borderline personality disorder (BPD) Borderline personality disorder (BPD) is common in psychiatric settings, affecting 2% of individuals living in the community,1 over 10% of community mental health patients and 20% of in-patients.2 People diagnosed with BPD on average have higher prevalence of a wide range of other comorbid mental health conditions including mood disorders (both unipolar and bipolar affective disorder), anxiety disorders, eating disorders, post--traumatic stress disorder (PTSD) and substance use disorders. Concurrent mental health conditions will affect successful treatment of BPD and should be treated prior to BPD, according to usual guidance for the particular condition, irrespective of any coexisting BPD diagnosis. More than 75% of people with BPD attempt suicide with 2–5% of patients dying from suicide.2,3 A high proportion of people with BPD are prescribed psychotropic drugs, often in polypharmacy regimens.4 A survey of prescribing practice in England found that over 90% of patients with BPD had been prescribed psychotropic medication, most commonly antidepressants or antipsychotics, particularly for affective instability.5 Individuals with BPD appear to be just as likely to be prescribed antipsychotics, antidepressants and mood stabilisers, whether or not they have a clear and documented comorbid diagnosis of schizophrenia, depression or bipolar disorder.4,5 This suggests that medicines are sometimes prescribed for the treatment of BPD per se (for which there is very limited support) rather than for specific comorbid conditions. No medicine is specifically licensed for the treatment of BPD, or indeed any aspect of BPD. Psychological treatments such as Dialectical Behaviour Therapy (DBT) have garnered much better evidence – a Cochrane review noted 75 randomised controlled trials (RCTs) of psychological treatments in 20206 and a 2023 network meta-analysis included 43 studies.7 Drug treatment of other psychiatric conditions

02 - Drug treatments of BPD

Drug treatments of BPD

788 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 In 2009 the UK National Institute for Health and Care Excellence (NICE)8 recommended that: ■ ■Drug treatment should not be used routinely for BPD or for the individual symptoms or behaviour associated with the disorder (e.g. repeated self-harm, marked emotional instability, risk-taking behaviour and transient psychotic symptoms). ■ ■Drug treatment may be considered in the overall treatment of comorbid conditions. ■ ■Short-term use of sedative medication may be considered as part of the overall treatment plan for people with BPD in a crisis. The duration of treatment should be agreed with the patient but should be no longer than 1 week. Owing to changes in the latest revision of ICD-11, which now defines all personality disorders as a single condition classified by severity, the current UK NICE guidelines are under review.8 A number of systematic reviews have been completed since the initial publication of the NICE guideline, concluding that evidence does not support the use of medicines alone, although when coupled with psychotherapy significant improvements in mood and behaviour can be anticipated.9,10 A 2022 Cochrane review11 concluded that medication has little or no effect on BPD symptom severity, self-harm, suicide-related outcomes and psychosocial functioning compared with placebo but may slightly reduce interpersonal problems. However, the evidence considered by the Cochrane review was rated as very low or low certainty and reporting on adverse events was poor and mostly non-standardised. It is clear that further research of good quality is required in this area. Drug treatments of BPD Antipsychotics A systematic review of RCTs evaluating the efficacy of second-generation antipsychotics (SGAs) in a number of aspects of BPD found that there was no overall improvement in BPD or in functioning.10 A beneficial effect of aripiprazole on anger and of quetiapine on aggression were shown, but a number of trials were rated as having moderate or high risk of bias and most of the evidence was deemed to be of low certainty.10 Olanzapine may have the best supported effectiveness in treating some BPD symptoms, along with depressive and anxiety symptoms, although it has not been shown to improve self-harm or aggression.10 Furthermore, olanzapine’s propensity for inducing metabolic syndrome means that patients must be fully informed of the risks of this before commencing off--label treatment with this agent and it should only be considered an option of ‘last resort’ for individuals with distressing symptoms that cannot be managed psychologically. Quetiapine is perhaps the most widely used antipsychotic in BPD. Its use is supported by small studies that reported modest improvement in a number of symptoms, but not impulsivity.12,13 In general, SGAs appear to improve general psychopathology, although this may be a reflection of improvement in comorbid conditions. There is some evidence to support the use of clozapine to improve psychotic symptoms, aggression, impulsivity, self-harming behaviour and overall functioning (with associated reduced hospital use) in those with severe treatment-refractory BPD, high suicide risk and frequent hospitalisations.9,14 A placebo-controlled RCT of lumateperone is underway at the time of writing.15

Drug treatment of other psychiatric conditions CHAPTER 9 Antidepressants Several open studies and small RCTs have investigated the use of selective serotonin reuptake inhibitors (SSRIs), -serotonin–noradrenaline reuptake inhibitors (SNRIs) and flupentixol in BPD. Fluoxetine has been noted to improve symptoms of BPD including impulsivity, self-harm, anger and mood instability, but one RCT comparing DBT or supportive therapy alone or in combination with fluoxetine showed higher rates of suicide attempts in those given fluoxetine.16 Duloxetine has been reported to improve overall psychopathology, depression, impulsivity and affective dysregulation17 and venlafaxine reduced somatic symptoms and self-injurious behaviour.18 In an open study, antidepressant doses of flupentixol showed significant improvements in general psychopathology and impulsivity symptoms but no further studies have been published to confirm this effect.9,19 Lastly, in a large database review of patients with BPD, bupropion decreased the risk of psychiatric re-hospitalisation.20 Overall, evidence supporting the use of antidepressants is weak and any beneficial effects are modest at best. Mood stabilisers and anticonvulsants There is some evidence in BPD that valproate and topiramate may improve anger.10 Valproate may reduce aggression and irritability and gabapentin may improve anxiety, affective instability and depressive symptoms.9 Obviously, given the risk of teratogenicity associated with valproate, it should never be prescribed to people of child-bearing age. Lithium is licensed for the control of aggressive behaviour or intentional self-harm, although its use in BPD has declined owing to concerns over long- term toxicity.21 Small studies have suggested lamotrigine may improve anger and reduce aggression, impulsivity and affective lability, though a large RCT found it had no effect at all on any symptom domain.9,10 Carbamazepine9 and mifepristone are likewise ineffective.22 Lisdexamfetamine and methylphenidate In a large database review of patients with BPD, lisdexamfetamine and methylphenidate decreased the risk of all hospitalisations, death and psychiatric re-hospitalisation.20 This probably reflects prescribing for attention deficit hyperactivity disorder (ADHD) in the context of BPD. Memantine An RCT of 33 subjects found adjunctive memantine 20mg a day to be more effective than placebo and well tolerated. More trials are needed.9 Opioid antagonists Very limited evidence supports the efficacy of naltrexone in reducing dissociative symptoms, but there have been no definitive trials supporting the effectiveness of naltrexone in the treatment of patients with BPD.9

03 - Management of crisis

Management of crisis

790 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 Ketamine A small RCT investigating the effects of one infusion of ketamine (vs midazolam) found more improvement in socio-occupational functioning in the ketamine group at day 14.23 However, the apparent improvement in BPD may well reflect changes in underlying mood rather than change in BPD psychopathology. In treatment-resistant depression with comorbid BPD, ketamine was shown significantly to improve both depressive and borderline symptoms.24 A case report of BPD and treatment-resistant depression that was managed with citalopram and esketamine nasal spray resulted in improvement in depression, anxiety and behavioural symptoms.25 Clearly, further studies are required. Omega-3 fatty acids A 2021 meta-analysis concluded that marine omega-3 fatty acids improve symptoms of BPD, particularly impulsive behaviour and affective dysregulation, and that they could be considered as an add-on therapy.26 Botulinum toxin In an RCT comparing glabellar botulinum toxin with acupuncture, both groups showed significant reductions in symptoms, but findings did not support the superiority of any particular treatment.27 Management of crisis Medications are often used during periods of crisis when symptoms can be severe, distressing and potentially life-threatening. In BPD these symptoms can be expected to fluctuate.28 Consequently, pharmacological therapy may then be required intermittently, and with each episode the decision to prescribe needs to be informed by a careful consideration of the relative harms and benefits of medication. It is generally easy to see when treatment is required, but much more difficult to decide when modest gains are worthwhile and whether or not continuation is likely to be necessary. The use of psychotropic drugs is not without harm, so treatment should always take the form of a rigorously evaluated short-term trial. In the UK, NICE8 recommends that during periods of crisis, time-limited treatment with a sedative drug may be helpful. The anticipated side effect profile and potential toxicity in overdose should guide choice. For example, benzodiazepines (particularly short-acting drugs) can cause disinhibition in this group of patients,29 ultimately compounding problems. Sedative antipsychotics can cause extrapyramidal side effects (EPSEs) and/or considerable weight gain, and tricyclic antidepressants are particularly toxic in overdose. A sedative antihistamine such as promethazine (25–50mg) is usually well tolerated and may be a helpful short-term treatment when used as part of a co-ordinated care plan (although there is no study evidence to support this assumption). Its adverse effects (dry mouth, constipation), deleterious effects on sleep architecture and lack of clear anxiolytic effects militate against longer-term use.

04 - References

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05 - Eating disorders

Eating disorders

06 - Anorexia nervosa (AN)

Anorexia nervosa (AN)

792 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 Eating disorders The incidence of eating disorders continues to increase.1 Lifetime risk of any eating disorder is 8.4% in women and 2.2% in men.2 Those with eating disorders may misuse medication and substances to manage their weight (e.g. laxatives, diuretics, ADHD stimulants, slimming pills, semaglutide and caffeine).3,4 Other psychiatric conditions (particularly anxiety, depression and obsessive compulsive disorder [OCD]) often coexist with eating disorders, and this may in part explain the benefit sometimes seen with medication. Any medicine prescribed should be accompanied by close monitoring to check for possible adverse reactions, and the timing of medicine administration should be considered in the context of purging. Anorexia nervosa (AN) General guidance Medicines have limited efficacy in AN and none is currently licensed for this condition.5 Prompt weight restoration to a safe weight, family therapy and structured psychotherapy are the main interventions.6,7 The aim of (physical) treatment is to improve nutritional health through re--feeding and there is very limited evidence to support the use of any pharmacological interventions other than those used to correct metabolic deficiencies. Medicines may be used to treat comorbid conditions which should be managed according to usual guidance for the particular condition. These may need to be treated before addressing AN, depending on the severity.6 Weight restoration Medicines have a limited role in weight restoration.8–10 Olanzapine has shown a positive effect on weight in AN in seven RCTs.11 One of these12 showed that 87.5% of patients given olanzapine achieved weight restoration (vs 55.6% on placebo), although olanzapine use was limited by poor tolerance and low patient acceptability. There is also some non-RCT evidence to support the use of aripiprazole.13,14 One RCT with risperidone showed no benefit on weight.15 Early data for quetiapine were encouraging16 but were not replicated in a later RCT.17 A 2023 review and guideline concluded that amitriptyline, clomipramine, fluoxetine, citalopram and sertraline do not restore weight and are not recommended.15 Two case reports with mirtazapine suggest it may improve weight18,19 although a small case–control study was negative.20 Benzodiazepines or antihistamines (e.g. promethazine) are not usually recommended for the promotion of weight gain.6 Metreleptin, a recombinant human leptin analogue, shows some promise with five cases reported of weight gain and improvement in hyperactivity and psychological symptoms associated with eating disorders.15 Dronabinol, a synthetic cannabinoid agonist, has some limited evidence supporting significant weight gain,21 but in the absence of any improvements in symptoms or psychological features. Adverse effects (particularly dysphoria) are common, and this may limit its usefulness.

Drug treatment of other psychiatric conditions CHAPTER 9 Treatment of psychological symptoms Antidepressants A Cochrane review found no evidence from four placebo-controlled trials that -antidepressants improved eating disorder or associated psychopathology.22 It has been suggested

that neurochemical abnormalities in starvation may partially explain this non-response.22 Co-prescribing nutritional supplementation (including tryptophan) with fluoxetine has not been shown to increase efficacy.23 In the UK, NICE found little evidence to support the use of antidepressants.6 Naturalistic studies suggest an important risk of switch to mania.24 Since 2021 case studies in adults with AN have shown that ketamine reduces depression scores and suicidality while improving psychological features of eating disorders.25,26 Psilocybin is hypothesised to alleviate neurobiological and behavioural features associated with AN, and several trials are underway.27 Other psychotropic medicines Antipsychotics, benzodiazepines or antihistamines (e.g. promethazine) are often used to reduce the high levels of anxiety associated with AN. A 2023 expert guideline noted that a number of RCTs suggest olanzapine may reduce agitation, pre-meal anxiety and obsessional or abnormal beliefs, while there is relatively limited evidence that aripiprazole reduces eating-specific anxiety and one RCT with risperidone showed no benefit for body image or psychological symptoms.15 Quetiapine may improve psychological symptoms but there are few data.16 If antipsychotics are used, only prolactin-sparing antipsychotics should be considered owing to the risk of osteoporosis (i.e. avoid risperidone, amisulpride and sulpiride). Many other medications15 have been investigated in small placebo-controlled trials of varying quality and success. These include lithium, zinc, naltrexone and cyproheptadine. None is currently widely used in practice. Case reports15 have shown a potential role for valproate and growth hormone-releasing peptide-2. Relamorelin (a ghrelin agonist), oxytocin, growth hormone and testosterone are probably not effective.15 An RCT is to be conducted to assess short-chain fatty acids (acetate, propionate, butyrate) in AN.28 Healthcare professionals should be aware of the risk of medicines that prolong the QT interval. All patients with a diagnosis of AN should have an alert placed in their prescribing record noting that they are at increased risk of arrhythmias secondary to electrolyte disturbances and potential cardiac complications associated with inadequate nutrition. Electrocardiogram (ECG) monitoring should be undertaken if the prescription of any medicine that may compromise cardiac functioning is essential.6 Treatment of physical aspects Vitamins and minerals Treatment with a multivitamin and multimineral supplement in oral form is recommended during both in-patient and out-patient weight restoration.6 Vitamin D supplementation may also be required.29 Electrolytes Electrolyte disturbances (e.g. hypokalaemia) may be asymptomatic and develop slowly. Life-threatening medical complications can result. Caution is required because electrolyte disturbances often resolve with re-feeding, but rapid correction may be hazardous

07 - Bulimia nervosa (BN) and binge eating disorde

Bulimia nervosa (BN) and binge eating disorder (BED)

794 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 and result in re-feeding--precipitated hypophosphataemia. Oral supplementation is used to prevent serious sequelae rather than to restore normal levels. If supplements are used, urea and electrolytes (U&Es), bicarbonate, calcium, phosphorus and magnesium need to be monitored and an ECG needs to be performed.30 Osteoporosis Bone loss is an important complication of AN with serious consequences. There is limited and conflicting evidence regarding the use of oestrogen, dehydroepiandrosterone (DHEA), combined oral contraceptives and bisphosphonates to improve bone density in AN. For those who have long-term low body weight and low bone mineral density, 17β-estradiol (with cyclic progesterone) or oestrogen (in young women aged 13–17 years) and bisphosphonates (for women over 18 years) can be used. Antipsychotics that raise prolactin levels can further increase the risk of bone loss and osteoporosis6 and should be avoided. Relapse prevention A 2018 review suggested that fluoxetine, citalopram, sertraline or mirtazapine may have a role to play in relapse prevention and improving symptoms in weight-restored patients.31 Evidence for this is very weak and since this review an RCT of fluoxetine has been published showing no effect.32 SSRIs can sometimes elevate prolactin so monitoring is recommended. Comorbid disorders Second-generation antidepressants are often used to treat comorbid major depression, anxiety and OCD. However, caution is necessary because depressive symptoms that are a consequence of self--starvation are only likely to improve with weight restoration. As weight loss is a frequent side effect of bupropion, this antidepressant is contraindicated for the treatment of comorbid depression in AN.33 Mania and psychosis occurring in the context of AN is probably best treated with olanzapine, and bipolar depression with olanzapine plus fluoxetine.33 Bulimia nervosa (BN) and binge eating disorder (BED) Medicines should not be offered as the sole treatment for BN or BED.6 Fluoxetine is the only SSRI to hold a product licence for BN, and adults with BN and BED may be offered a trial of fluoxetine. The effective dose of fluoxetine is 60mg daily.34 Patients should be informed that fluoxetine can reduce the frequency of binge eating and purging but long-term effects are

unknown.35 Early response (at 3 weeks) is a strong predictor of response overall.36 Sertraline has also shown a reduction in binge eating and purging in both BN and BED, whereas citalopram showed improvement only in BED.15 Antidepressants may sometimes be used for the treatment of BN in adolescents, but they are not licensed for this age group and there is little evidence for this practice. They should not be considered as a first-line treatment in adolescent BN.6 There is some reasonable evidence that topiramate15 reduces the frequency of binge eating although topiramate is contraindicated in pregnancy and in women of child- bearing potential (if not using a highly effective method of contraception). There is rather limited evidence for the usefulness of aripiprazole, bupropion, duloxetine,

08 - Other atypical eating disorders

Other atypical eating disorders

Drug treatment of other psychiatric conditions CHAPTER 9 reboxetine, lamotrigine, liraglutide, methylphenidate, zonisamide and sodium oxybate in BN/BED or both.15 Bupropion is not recommended due to a high risk of seizures in BN.15 Acamprosate37 also has limited evidence in BED. Systematic reviews35,38 confirm the modest efficacy of SSRIs and also suggest benefit for lisdexamfetamine (based on one high-quality RCT39). Lisdexamfetamine is approved for BED in the USA.40 Some limited evidence supports the use of a slow-release combination of phentermine and topiramate, however this combination was refused marketing authorisation owing to serious adverse effects.15 The noradrenaline/dopamine reuptake inhibitor dasotraline may also be effective41 but its development appears to have ceased in 2020. Comorbid depression Depression is a frequent comorbidity in BN and BED. Citalopram has been shown to be more effective than fluoxetine for depressive symptoms in BN patients.42 As weight gain is a frequent side effect of mirtazapine, this antidepressant should be avoided or used with caution for the treatment of comorbid depression in BED.33 Other atypical eating disorders There have been very few useful studies of the use of medicines to treat atypical eating disorders other than AN, BN and BED.6,43 Evidence for avoidant restrictive food intake disorder based on case reports/series and chart reviews suggests some benefit for mirtazapine, SSRIs (fluoxetine, sertraline), olanzapine and cyproheptadine.15 In the absence of evidence to guide the management of other atypical eating disorders (also known as ‘eating disorders not otherwise specified’), it is recommended that the clinician considers following the guidance of the eating disorder that most closely resembles the individual patient’s eating disorder (Box 9.1).6 Box 9.1 Summary of UK NICE guidance on eating disorders6 Anorexia nervosa ■ ■Psychological interventions are the treatments of choice and should be accompanied by psychoeducation and monitoring of the patient’s weight, mental and physical health and any risk factors ■ ■Do not offer medication as the sole treatment for anorexia nervosa Bulimia nervosa ■ ■An evidence-based self-help programme or cognitive behaviour therapy for bulimia nervosa should be the first choice of treatment followed by other psychological therapies ■ ■A trial of fluoxetine may be offered in combination with other treatments. Do not offer medication as the sole treatment for bulimia nervosa Binge eating disorder ■ ■An evidence--based self-help programme of cognitive behavioural therapy for binge eating disorder should be the first choice of treatment followed by cognitive behavioural therapy ■ ■A trial of a selective

serotonin reuptake inhibitor can be considered in combination with other treatments. Do not offer medication as the sole treatment for binge eating disorder ■ ■Lisdexamfetamine is also an option

09 - References

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10 - Attention deficit hyperactivity disorder (ADH

Attention deficit hyperactivity disorder (ADHD) in adults

798 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 Attention deficit hyperactivity disorder (ADHD) in adults While globally ADHD may still be under-recognised and under-treated, rates of ADHD diagnoses and psychostimulant use have been rapidly rising over the past two decades in many countries, including the UK.1–3 Increased awareness about this often life-long and disabling condition has also fuelled societal debates on ‘pathologising’ a condition that many interpret as indissoluble from their identity, with relevant implications on the appropriateness of potentially life-long pharmacological treatment. A first-time diagnosis of ADHD in an adult is compatible with both ICD-11 and DSM-5 and should only be made after a comprehensive assessment by a healthcare professional with training and expertise in diagnosing and managing ADHD. Whenever possible, this should include information from other informants and from adults who knew the patient as a child. It is recommended to establish the symptoms and impairments of ADHD using a validated diagnostic interview assessment such as the Diagnostic Interview for ADHD in Adults (DIVA-5), based on the DSM-5 adult ADHD criteria.4 Evaluation of innovative technology in addition to routine clinical assessment to diagnose ADHD and evaluate different treatments is underway.5 People with untreated ADHD might have poorer long-term outcomes in several life domains compared with people without ADHD and people with treated ADHD.6 However, assumptions of efficacy, tolerability or better functional outcomes from long- term ADHD medication use are currently unsubstantiated due to the scarcity of data from randomised placebo-controlled trials of ADHD treatment lasting more than 52 weeks. Short-term trials have consistently found that ADHD medications improved inattentiveness and restlessness more than quality-of-life measures. There is inadequate direct comparative evidence to guide clinical practice on choice of ADHD medications or augmentation regimens. Moreover, the strength of the evidence for efficacy of the most frequently used pharmacological treatments for ADHD in adults is ‘low’ or ‘very low’.7–-9 To some extent, adult ADHD clinical guidelines and consensus documents do not reflect this uncertainty and recommend medications as first-line treatment in adults with ADHD whose

symptom severity cannot be sufficiently reduced by environmental modifications. Daily intake of ADHD medication is usually advised, although ad hoc trial periods of stopping medication, medication off-days or reducing the dose should be considered to minimise any possible adverse outcomes. Doubts remain about the long-term cardiovascular effects of stimulant drugs. A 2022 meta- analysis suggested no adverse effect, but a 2024 population study found increased (and dose- related) risk of cardiovascular disease.10,11 Clinicians should regularly and consistently monitor cardiovascular signs and symptoms throughout the course of treatment. A healthcare professional with training and expertise in managing ADHD should review ADHD medication at least once a year and discuss with the person (and their family and carers as appropriate) whether medication should be continued.12 Additional considerations in adults (as opposed to children) include a diagnosis of bipolar or psychosis (ADHD medication may worsen these conditions13) and the need to reduce the opportunity for diversion or misuse (prescribe modified-release [MR] preparations or non-stimulants). Medications for the treatment of adult ADHD belong to two broad categories:

1. Psychostimulants (i.e. methylphenidate, dexamfetamine, lisdexamfetamine [Controlled Drugs in most countries]).
2. Non-stimulants14 (i.e. atomoxetine or other non-controlled drugs).

Drug treatment of other psychiatric conditions CHAPTER 9 The enhancement of dopaminergic and noradrenergic neurotransmission in the prefrontal cortex is the probable mechanism of ADHD drugs.15 Evidence largely supports amfetamines in adults as the preferred first-choice medication for the short-term treatment of ADHD, followed by methylphenidate preparations.16 Lisdexamfetamine or methylphenidate is considered first-line choice of medication in adults.12 Lisdexamfetamine is associated with improved outcomes in persons with ADHD and co-occurring amfetamine or methamfetamine use disorders.17 Atomoxetine might be an appropriate alternative for patients who did not tolerate or have contraindications to stimulants, or in cases of concern of medication misuse or diversion. Stimulant medication response may lessen over longer durations of treatment in a significant percentage of patients.18 MR stimulant preparations are generally preferred to immediate-release (IR) tablets because of the higher liability to tolerance, misuse and diversion (for recreational use, cognitive enhancement or appetite suppression) of IR stimulant preparations, and the convenience of a once-daily intake (compared with twice or three times daily). It is possible that several formulations will need to be tried before one is found that suits an individual. While all long-acting methylphenidate preparations include an IR component as well as an MR component, the biphasic release profiles of these products are not equivalent and contain different IR/MR proportions. The different time–action profiles provided by long-acting formulations facilitate individualisation of ADHD treatment. Transferring to another formulation can result in changes in symptom management at key time periods during the day. Patient preference should guide clinicians’ decisions on any medication change, which, during worldwide ADHD medication supply disruptions at the time of writing, is frequently the only alternative to discontinuation. For adults with ADHD and drug or alcohol addiction disorders, there should be close liaison between the professional considering prescribing ADHD medication and an addiction specialist. As with any prescription of controlled substances, the clinician must weigh the risk of misuse/diversion against the stimulant’s potential therapeutic benefit.19 In the UK, atomoxetine, lisdexamfetamine and two MR capsule formulations of methylphenidate (Medikinet XL, Ritalin XL) are licensed for first-time use in adults with ADHD, while most MR tablet formulations of methylphenidate are licensed for

children and for continued treatment when initiated before the age of 18 years. In some cases, starting drug-naïve adults with ADHD on formulations prescribed off-licence might be appropriate. Guanfacine is also effective and well tolerated in adults. A 2023 meta-analysis of 12 studies showed a response rate of around 60% (placebo 30%).20 Viloxazine also appears to be effective21 as is bupropion22 but data are limited compared with guanfacine. Prescribers should be familiar with the national and international requirements of Controlled Drug legislation governing the prescription and supply of stimulants.23,24 Generally, for Controlled Drugs or medicines that are liable to abuse, overuse or misuse or when there is a risk of addiction and monitoring is important, prescribing should be considered only when it is possible to access relevant information from the patient's medical records.25 Box 9.2 summarises UK NICE guidelines and Table 9.1 lists the advantages and disadvantages of different medications for the treatment of ADHD in adults. See Chapter 5 for details of products available in the UK (see also local and national prescribing information).

800 The Maudsley® Prescribing Guidelines in Psychiatry CHAPTER 9 Box 9.2 Summary of NICE guidance for the treatment of ADHD in adults12 ■ ■Drug treatment should only be initiated by a specialist and only after comprehensive assessment of mental and physical health and social influences ■ ■Medication for ADHD should be offered to adults if their ADHD symptoms are still causing a significant impairment in at least one domain after environmental modifications have been implemented and reviewed ■ ■Non-pharmacological options (supportive therapy, cognitive behavioural therapy, regular reviews) can be considered depending on choice, difficulties with adherence or intolerable adverse effects. Combination of medication with non-pharmacological options can also be considered in partial response to medication treatment ■ ■Methylphenidate or lisdexamfetamine is recommended for use in adults with ADHD as first-line treatment. Switching between the two could be considered after a 6-week trial of an adequate dose with suboptimal response ■ ■Atomoxetine could be offered to adults if: ■ ■they cannot tolerate lisdexamfetamine or methylphenidate, or ■ ■their symptoms have not responded to separate 6-week trials of lisdexamfetamine and methylphenidate, having considered alternative preparations and adequate doses ■ ■Monitoring should include measurement of weight, blood pressure and heart rate ■ ■For atomoxetine, monitoring for symptoms of liver dysfunction and suicidal thinking is advised ■ ■An ECG is not needed before starting stimulants, atomoxetine or guanfacine if cardiovascular history and examination are normal and the person is not on medicine that poses an increased cardiovascular risk Table 9.1 The advantages and disadvantages of medications indicated for treating ADHD in adults. Drug group Drug Advantages Disadvantages ADHD stimulants Immediate release: ■ ■Methylphenidate ■ ■Dexamfetamine Quick onset of effect Allows for flexible dosing regimens, or during initial titration to determine correct dosing levels May be associated with euphoric effects, misuse/diversion and adverse effects Higher effect size compared with non-stimulants Generally well tolerated and safe short term Modified or prolonged release: ■ ■Lisdexamfetamine ■ ■Methylphenidate Convenient once-daily regimen Less risk of misuse and diversion compared with IR stimulants Less flexible dose titration and regimen compared with IR stimulants In the UK some preparations are not licensed for initiation in adults. Caution when switching between apparently bioequivalent preparations owing to differences in dosing frequency, requirements for administration with food, differences in the MR component and overall clinical effect Tablet and capsule preparations might be difficult to swallow.

11 - References

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Drug treatment of other psychiatric conditions CHAPTER 9 References

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Drug group Drug Advantages Disadvantages Non- stimulants Atomoxetine (NE reuptake

inhibitor) Not Controlled Drugs – less restrictive prescribing regulations Can help when stimulants are not indicated or not tolerated (e.g. tic disorders, active substance use disorders, others) Might be considered by specialists in case of refractory ADHD or as an alternative to stimulants Require weeks to attain full effect Higher risk of interactions (metabolised by CYP2D6) and effect variability due to genotype – might require dose adjustments26 Lower effect size than stimulants Guanfacine (α2A-adrenoceptor agonist) In many countries off-label (unlicensed) for ADHD in adults Off-label prescribing may restrict opportunities to transfer to primary care. Viloxazine (5HT- and NE-modulating agent) USA only Bupropion (dopamine and NE reuptake inhibitor) Limited evidence base 5HT, 5-hydroxytryptamine; NE, norepinephrine. Table 9.1 (Continued)

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