

ADHD and co-morbid substance use disorder – a guide for clinicians

Background

ADHD is a heterogeneous behavioural syndrome characterised by the core symptoms of hyperactivity, impulsivity and inattention. While these symptoms tend to cluster together, some people are predominantly hyperactive and impulsive while others are inattentive.

Most young people do not use illicit drugs and among those who do only a small number will develop serious problems.¹ ADHD and substance misuse can often co-occur.¹ However, most studies of ADHD treatment typically exclude those with a substance use disorder.²

Pharmacological treatment of ADHD should **not** be postponed pending resolution of substance misuse.¹ Individuals with substance use disorders (SUDs) and ADHD have an earlier onset of substance abuse than those without ADHD, a greater likelihood of having continuous problems if they develop substance dependence, a reduced likelihood of going into remission, and a tendency to take longer to reach remission. The diagnosis and treatment of ADHD in patients with SUD is essential to achieve the best possible outcome.³ Although the British Association for Psychopharmacology (BAP) highlight that it is unclear what the ideal management of people with concurrent substance use disorders is (e.g. detoxification/behavioural modification before, after or combined with ADHD treatment),⁴ others suggest that the simultaneous treatment of both conditions is likely to be the optimal approach because ADHD symptoms will interfere with SUD treatment, and substance use will limit the benefit of ADHD treatment.³ In addition, existing evidence indicates that treatment of ADHD with medication does not exacerbate SUD² or increase the risk of the development of substance misuse in the treated individual.^{1,5}

These guidelines should be read alongside other current guidance (NICE, Trust guidelines and Shared Care Protocols) and they are intended to support a treatment strategy for young people and adults with ADHD who have a co-morbid SUD.

Choice of ADHD treatment in SUD

No clear treatment guidelines or care pathways exist to guide clinicians to manage ADHD with comorbid SUD.² The NICE guideline for ADHD recommends that when a decision has been made to treat children or young people with ADHD with drugs, healthcare professionals should consider methylphenidate or atomoxetine when stimulant misuse (&/or diversion) is present.⁶ The BAP recommends that psychostimulants, especially short acting preparations, are best avoided in those with comorbid SUD.⁴

There is limited evidence on which to base specific recommendations about which ADHD treatment to choose, however it is important to give appropriate weight to the efficacy of stimulant medication when balancing the use against the risk of misuse or diversion. When assessing for substance misuse the clinician should be aware that as well as the usual stimulants (amphetamine and cocaine) many of the so called “*Legal Highs*”, have an amphetamine-like effect. This in itself does not exclude someone from ADHD medical treatment.

Assessment of risk should be on an individual case by case basis and a decision to use stimulant medication made following a broad clinical assessment and an individual risk-benefit analysis. Consideration should also be given to the risk of diversion by the parent/carer. Careful documentation of the risk/benefit assessment and decision should be made in the patient's notes. There should be ongoing monitoring of ADHD symptoms and medication should only continue to be prescribed if it results in symptom improvement.

Diversion of medication

If there are concerns about diversion and treatment with an alternative medicine such as atomoxetine is not possible then prescribing on an FP10MDA may be considered for daily supervised consumption.

Table to aid guidance on choice

Drug	Contraindication in SUD?	Notes
Methylphenidate	No <ul style="list-style-type: none"> - exception = current abuse of prescription stimulants or a clear indication that prescribed medication would be sold or diverted.³ 	<p>The available evidence suggests stimulants administered under monitored conditions can be safe and effective in those with SUD.³ Use of an FP10MDA may be appropriate (see above).</p> <p>Avoid immediate release preparations and use prolonged release preparations in preference (ie Concerta XL, Equasym XL, Medikinet XL) as they have a lower abuse potential. These preparations are also more difficult to use via the non-oral route.</p> <p>Methylphenidate does not appear to alter the pharmacokinetics or physiological effects of cocaine to a clinically significant extent⁷ and has been effectively used in cocaine users.⁴</p> <p>Review patient regularly.</p> <p>Emphasise the importance of following the treatment regimen and monitor the therapeutic effect.</p> <p>Monitor for worsening of SUD, and/or for evidence of diversion. Discontinue treatment if either of these becomes evident.</p>
Atomoxetine	No	<p>Atomoxetine is a non-controlled, highly selective noradrenaline re-uptake inhibitor.</p> <p>NICE recommends that it may be chosen first line if tics, Tourette's syndrome, anxiety disorder, stimulant misuse or risk of stimulant diversion are present.⁶</p> <p>May be used when methylphenidate has been tried but has been ineffective at the maximum tolerated dose, or the person is intolerant of methylphenidate.⁶</p> <p>Low abuse potential, therefore makes a good choice if there is evidence (or high likelihood e.g. in the Prisoner population) of abuse or diversion of prescription stimulants.</p>
Lis-dexamfetamine (secondary care prescribing only)	No <ul style="list-style-type: none"> - exception = current abuse of prescription stimulants or a clear indication that prescribed medication would be sold or diverted 	<p>Pro-drug of dexamfetamine with a prolonged release action.</p> <p>Lis-dexamfetamine has been included on the Trust formulary as a restricted medicine for use after methylphenidate has failed and when atomoxetine has failed or is not appropriate.</p> <p>It may possibly have a lower abuse risk than dexamfetamine⁸ however it is not without the potential to be abused – higher oral doses may need to be taken to achieve the same “drug-liking” as an equivalent dose of dexamfetamine. In house studies conducted by the manufacturer indicate that <i>“tampering of lisdexamfetamine to produce dexamfetamine is not practical due to the hazardous and cumbersome nature of the extraction and the poor quality of amphetamine product obtained”</i>⁹</p>
Dexamfetamine	No <ul style="list-style-type: none"> - exception = current abuse of prescription stimulants or a clear indication that prescribed medication would be sold or diverted 	<p>Immediate release stimulant indicated for use in patients whose ADHD is unresponsive to a max tolerated dose of methylphenidate or atomoxetine.⁶</p> <p>In SUD other treatments would be preferred. Dexamfetamine is more abused than methylphenidate. If there has been poor response to methylphenidate or atomoxetine it may be appropriate to consider lis-dexamfetamine in preference to dexamfetamine (see above). Use dexamfetamine only when a good case can be made that it has clear advantages and won't be abused.</p>

References:

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