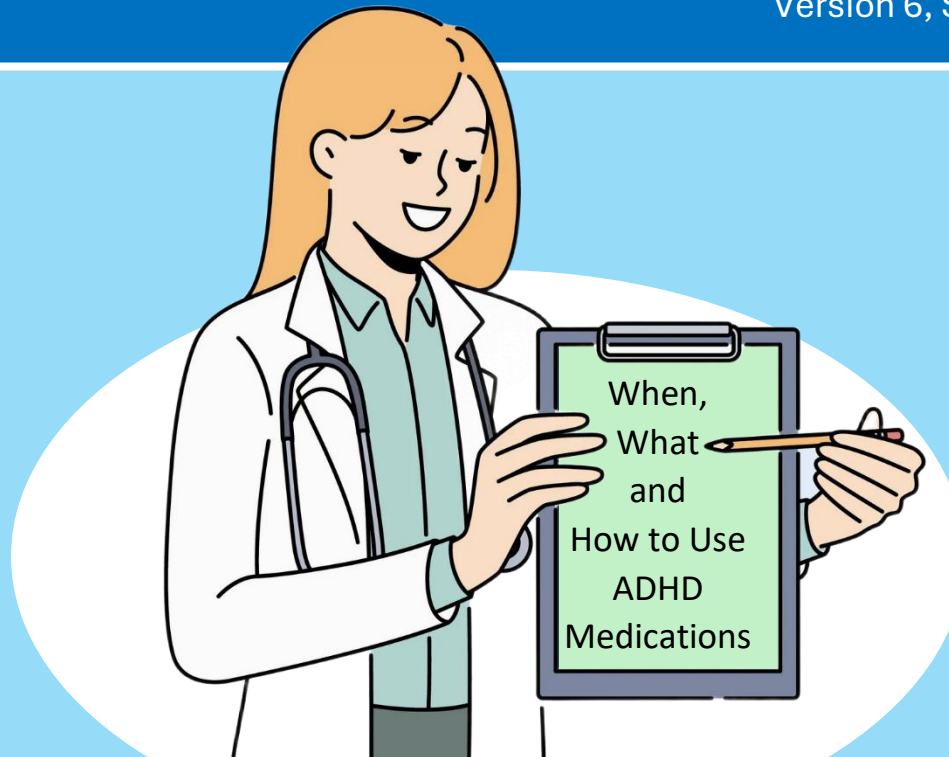


ADHD Medications at a Glance

A Practical Guide for Healthcare Professionals

Version 6, September 2026



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ADHD Medications licensed and available in the UK	Characteristics	Short/long acting	IR:MR* Ratio	Works for **	Equivalent daily doses of IR MPH or dexamfetamine	Titration	Frequency of doses per day	Maximum dose per day
STIMULANT MEDICATIONS – Methylphenidate (MPH) based medications								
Generic methylphenidate 5 mg, 10 mg, 20 mg Medikinet 5 mg, 10 mg, 20 mg Ritalin 10 mg	Tablet, can be halved or crushed to aid swallowing	Short-acting Works in ~30 to 60 min	100% IR	Up to 4 hrs	5 ml of 2 mg/ml = 10 mg of methylphenidate tablet (Ritalin)	Start with 5 mg 1-2 times daily, increase by 5-10 mg/day at weekly intervals	2 or 3 times a day with or after food	Licensed maximum 60 mg/day Up to 2.1 mg/kg/day Or 90 mg/day
Methylphenidate oral solution 2mg/ml 150 ml bottle	Sugar free liquid							
Ambinet XL, ▼ Medikinet XL, 5mg, 10 mg, 20 mg, 30 mg, 40 mg, 50 mg, 60 mg Focusim XL 10mg, 20 mg, 30mg, 40mg Meflynate XL, Metyrol XL 10 mg, 20 mg, 30 mg, 40 mg, 60mg Ritalin XL 10 mg, 20 mg, 30 mg, 40 mg	Capsule may be swallowed as whole or contents can be sprinkled onto soft food (yoghurt/apple sauce)	Long-acting Works in ~30 to 60 min Covers school day	IR:MR 50:50	Up to 8 hrs	5 mg = 2.5 mg MPH twice a day 10 mg = 5 mg MPH twice a day 20 mg = 10 mg MPH twice a day 30 mg = 15 mg MPH twice a day 40 mg = 20 mg MPH twice a day 50 mg = 25 mg MPH twice a day 60 mg = 30 mg MPH twice a day	Start with 5 to 10 mg/day and increase weekly by 10 mg increments	Once a day in the morning with or after breakfast With or without food (Metyrol XL and Meflynate XL)	Licensed maximum 60 mg/day Up to 2.1 mg/kg/day Or 90 mg/day (as per BNF)
Addepta XL, Equasym XL 10 mg, 20 mg, 30 mg			IR:MR 30:70			Start with 10mg/day and increase weekly by 10mg increments	Once a day in the morning before breakfast	
Tuzulby 20 mg, 30 mg, 40 mg (can be halved in equal doses)	Chewable tablet, not swallowed		IR:MR 30:70				Once a day in morning with or without food	
Affened XL, Atenza XL (also 45 mg), Concerta XL, ▲ Delmosart, Kixel XL, ▲ Xaggitin XL, Xenidate XL 18 mg, 27 mg, 36 mg, 54 mg Matoride XL 18 mg, 36 mg, 54 mg	Tablet, swallowed as a whole	Long-acting Works in ~30 to 60 min Covers school and home day	IR:MR 22:78 IR:MR ▲25:75	Up to 12 hrs	18 mg = 5 mg MPH 3 times/day 36 mg = 10 mg MPH 3 times/day 54 mg = 15 mg MPH 3 times/day	Start with 18mg/day and increase by 9 to 18mg according to dose availability at weekly intervals	Once a day in the morning with or without food	Licensed maximum 54mg /day Up to 2.1 mg/kg/day Or 108 mg/day (BNF)
STIMULANT MEDICATIONS – Amphetamine based medications								
Amfexa 5 mg, 10 mg, 20 mg Dexamfetamine 5 mg, 10 mg Liquid 5 mg/5ml	Tablet can be divided to aid swallowing	Short-acting Works in ~30 to 60 min	100%	3 to 6 hrs	5 mg = 10 mg MPH	2.5 mg 2 to 3 times a day and increase by 5mg per day at weekly intervals	2 or 3 times a day	1 mg/kg/day 20 mg/day. Up to 40 mg/day may occasionally be required
Elvance and Lisdexamfetamine 20 mg, 30 mg, 40 mg, 50 mg, 60 mg and 70 mg	Capsule Content can be opened onto soft food/ dissolved in water/juice	Long-acting Works in ~ 1 to 2 hrs Covers school and home day	Not applicable	Up to 13 hrs	(20 mg = 5.9 mg dexamfetamine) 20 mg = 5 mg in divided doses 30 mg = 7.5 mg in divided doses 40 mg = 10 mg in divided doses 50 mg = 15 mg in divided doses 60 mg = 17.5 mg in divided doses 70 mg = 20 mg in divided doses	Start with 20 or 30 mg capsule once a day in the morning. Increase by 10 mg at weekly interval up to maximum dose of 70mg/day, if required	Once a day in the morning with or without food	Licensed maximum 70 mg/day
NON-STIMULANTS MEDICATIONS								
Atomoxetine and Atomaid 10 mg, 18 mg, 25 mg, 40 mg, 60 mg, 80 mg, 100 mg Atomoxetine liquid 4 mg/ml	Capsule, swallowed as a whole	Long-acting Covers school and home day	Not applicable	Up to 24 hrs	<70 kg – start with 0.5 mg/kg/ day for 7 days and increase to 1.2 mg/kg/day, according to response >70 kg – start with 40 mg per day for 7 days and increase to 80 mg /day, according to response. Early effect in 1 to 2 weeks and full response may take 6 weeks or more.	Once a day or 2 divided doses per day		<70 kg: 1.8 mg/kg/day or 120 mg/day >70 kg: 120 mg/day
Guanfacine 1mg, 2mg, 3mg, 4 mg, 5 mg, 6 mg, 7 mg Intuniv 1 mg, 2 mg, 3 mg, 4 mg	Tablet, swallowed as a whole	Long-acting Covers school and home day	Not applicable	Up to 24 hrs	6-12 year olds (25 kg and up): start with 1 mg and increase by 1mg at weekly intervals 13 to 17 year olds: as above but the maximum dose varies Optimal dose range = 0.05-0.12 mg/kg/day Early effect in 1 to 2 weeks, full benefit may take several weeks	Once a day am or pm, with or without food but avoid high fat meal, grapefruit juice		6 to 12 olds: 4 mg 13 to 17 year olds: 4 mg (34 to 41.4 kg) 5 mg (41.5 to 49.4 kg) 6 mg (49.5 to 58.4 kg) 7 mg (58.4 kg and above)

*IR – Immediate Release proportion and MR – Modified Release Proportion ▼ This medicine is subject to additional monitoring. This will allow quick identification of new safety information. You can help by reporting any side effects the patients may get. See <https://yellowcard.mhra.gov.uk> for how to report side effects. ** The duration of action can vary as pharmacokinetic, and pharmacodynamic responses vary from individual to individual.

Please note this table is intended for general guidance only. Above all, monitor patients carefully both for beneficial and adverse effects; manage appropriately. Please ensure you follow the guidance from Electronic Medicines Compendium/BNF/SmPC for each product and NICE Guidelines (NG87) for accuracy and information.

When to use medications



Indications

- Medication should be used as part of comprehensive management, including behavioural, psychological and educational interventions
- Severe impairment due to ADHD in a child aged 5 years or above
- Methylphenidate is the first choice
- Consider lisdexamfetamine if methylphenidate is not effective after a 6-week-trial of methylphenidate
- Consider dexamfetamine when lisdexamfetamine is beneficial but longer duration not tolerated
- Consider guanfacine or atomoxetine if methylphenidate or lisdexamfetamine not effective after separate 6-week trials or not tolerated

Contraindications to stimulant drugs

- Treatment with MAO inhibitors and for up to 14 days after discontinuation
- Glaucoma
- Untreated hyperthyroidism
- Pre-existing gastrointestinal narrowing
- Known hypersensitivity or allergy to products

Drug holidays

- Methylphenidate or lisdexamfetamine can be stopped during weekends and school holidays if needed and the child's condition is manageable, especially in case of clear benefits but significant concerns about reduced appetite
- Atomoxetine or guanfacine should be taken every day to maintain the response

Pre-drug treatment checklist



- Check BP and pulse rate and plot them on the centile chart. Seek specialist paediatric/cardiology advice if BP is consistently above the 95 centile.
- Check weight and height and plot them on growth chart
- Assess for cardiovascular problems
 - congenital heart disease or previous cardiac surgery
 - exercise syncope
 - undue breathlessness
 - palpitations (heartbeats rapid, regular, start and stop suddenly)
 - chest pain of cardiac origin
 - signs of heart failure
 - hypertension
 - heart murmur on examination
 - sudden death in 1st degree relative under the age of 40 years of cardiac cause



Ask for cardiology opinion if any of the above present.



- Check for any history of substance misuse
- Assess baseline appetite and sleep pattern
- Ask if the child can swallow a tablet or capsule
- Assess if the ADHD symptom severity is present predominantly during school day or throughout the day at school and home
- Check for comorbidity – severe anxiety, tics, depression etc.

Follow-up assessment

- After starting medication check BP and pulse rate every 6 months and plot them on the [BP centile chart](#) and pulse rate centile chart.
- Check BP and pulse rate before and after each dose change
- Measure height every 6 months in children and teenagers
- Measure weight every 3 months for children aged 10 years and under
- Measure weight at 3 and 6 months after starting treatment in children aged over 10 years and every 6 months thereafter
- Use a rating scale to monitor response to medication at home and school (e.g. ADHD rating scale etc.)
- Check the need for continuing medication every year
- Check for side effects including:
 - Decreased appetite
 - Weight loss
 - Nervousness
 - Difficulty getting to sleep
 - Sleepiness
 - Headache
 - dizziness
 - Stomach pain
 - Dry mouth

Please note: Guanfacine has side effects SSF (Somnolence, Sedation and Fatigue). When stopping guanfacine, it should be reduced by 1 mg every 3 to 7 days and BP monitored to check for rise.



Managing side effects

Appetite decreased

- Wait to see if it gets better
- Decrease dose of medication
- Encourage to eat better, increase calorie intake
- Monitor weight gain

Weight loss

- Take medication with or after food
- Take additional meals or snack in the morning or evening when the effect of medication wears off
- Reduce dose of medication
- Consider lower dose or stop medication over weekends
- Take high calorie healthy foods
- Refer to dietician
- Assess for other causes -? unwell

Difficulty getting to sleep

- Ensure bedtime routine and sleep hygiene in place
- If short-acting tablet – stop the dose after 3pm, alternatively try a short-acting tablet 1-2 hrs prior to bedtime for a short trial period
- If long-acting medication
 - Reduce dose
 - Start medication early in the morning before breakfast
 - Change formulation
 - Consider atomoxetine
 - Consider a trial of melatonin if delayed sleep phase syndrome present

Tics

- Reduce stimulant dose or stop medication
- Restart medication to check if tics return
- Consider atomoxetine, clonidine or guanfacine

Monitoring for adverse/side effects

Some major adverse effects are listed here. Please check EMC and SmPc for ADHD medications and for full list of adverse/side effects and up-to-date information.

Medications	Adverse/side effects	
Stimulant medications	- Decreased appetite - Sleep disturbances - Increased blood pressure and pulse rate - Headaches, irritability, stomach pain	
Atomoxetine	- Decreased appetite, headache - Stomach pain, nausea, vomiting - Sleep disturbances - Increased blood pressure and pulse rate	Uncommon: Migraine Suicidal ideation Rare: Liver failure
Guanfacine	- Somnolence/sedation, fatigue - Hypotension - Bradycardia - Irritability - Insomnia	

Reference: Evidence-based pharmacological treatment options for ADHD in children and adolescents, 2022;
<https://www.sciencedirect.com/science/article/pii/S016372582100142X>

Checklist when ADHD medication is not working or effective and need to switch

- Are you treating the right symptoms?
- *Was the medication correctly titrated?*
- Maximum dose tried?
- *What time is the medication working?*
- Is the medication wearing off?
- *What else is happening in home/school?*
- Have you got school and parental feedback? Any disagreement?
- *Medication is working but significant adverse effects?*
- Any comorbidity missed, e.g. sleep problems?
- *Is ADHD the right diagnosis?*

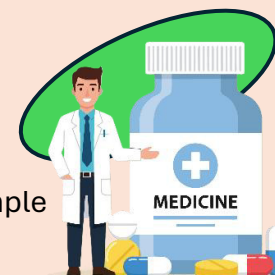


Reference: The World Federation of ADHD Guide, 2022 (Chapter - ORGANIZING AND DELIVERING, TREATMENT FOR ADHD)

https://www.adhdfoundation.org.uk/wp-content/uploads/2022/08/The-WF-ADHD-Guide_072019.pdf

How to switch patients from Immediate Release (IR) or *Extended-Release (ER) Methylphenidate to Long-acting Methylphenidate formulations

- Do not rely on simple equivalence based on total dose
- Check the Immediate Release (IR) dose of current methylphenidate, **for example**
 - Medikinet XL 20 mg (IR 50%: MR 50%) has **10 mg** of Immediate Release dose methylphenidate
 - Equasym XL 40 mg with (IR 30%: MR 70%) has **12 mg** of immediate Release methylphenidate
- Check the Immediate Release dose of methylphenidate of the long-acting methylphenidate you are planning to switch to, for example
 - Xaggitin XL 45 mg (18+27 mg) with IR 22%: MR 78%, has **9.9 mg** of Immediate Release methylphenidate
- So Medikinet XL 20 mg can be switched to Xaggitin XL 45 mg as equivalent dose of Immediate Release proportion



Current medication *ER Methylphenidate (IR 30%: MR 70%) UP TO 8 HRS ACTION		Switch dose to maintain similar IR dose Long-acting MPH (IR 22%: MR 78%) UP TO 12 HRS ACTION		OPTIMISING THE TREATMENT	
Addepta XL Equasym XL Tuzulby		Affened XL, Atenza XL, Concerta XL, Delmosart, Kixel XL, Matoride XL, Xaggitin XL, Xenidate XL		How to optimise the treatment dose	
10 mg (IR 3 mg)		18 mg (IR 3.96 mg)		- Start low and go slow on dosage - Aim for maximum benefit with tolerable dosage (minimal /no side-effects) - Consider doses beyond maximum licensed dosage in case of partial response	
20 mg (IR 6 mg)		27 mg (IR 5.94 mg)			
30 mg (IR 9 mg)		36 mg (IR 7.92 mg)			
40 mg (20+20) IR 12 mg		54 mg (IR 11.44 mg)			
50 mg (30+20) IR 15 mg		72 mg (36+36) with IR 15.84 mg			
60 mg (30+30) IR 18 mg		81 mg (54+27) with IR 17.82 mg		BNF states maximum dose 90 mg/day ER MPH* and for Concerta XL 108 mg /day	
Current medication *ER Methylphenidate (IR 50%: MR 50%) UP TO 8 HRS ACTION		Switch dose to maintain similar IR dose Long-acting MPH (IR 22%: MR 78%) UP TO 12 HRS ACTION			
Ambinet XL, Focusim XL, Medikinet XL, Meflinate XL, Metyrol XL, Ritalin XL		Affened XL, Atenza XL, Concerta XL, Delmosart, Kixel XL, Matoride XL, Xaggitin XL, Xenidate XL			
10 mg (IR 5 mg)		27 mg (IR 5.94 mg)			
20 mg (IR 10 mg)		45 mg (27+18 mg) with IR 9.9 mg			
30 mg (IR 15 mg)		54 mg (IR 11.44 mg)			
40 mg (IR 20 mg)		90 mg (54+36) with IR 19.8 mg			
50 mg (IR 25 mg)		108 mg (54+54) IR 23.76 mg			

Disclaimer: Any product mentioned in this guide should be used in accordance with the prescribing information prepared by the manufacturer. While every effort has been made to present the information as accurately as possible, the authors cannot accept responsibility for any detrimental consequences arising from the information contained herein. **Please note:** The information provided is intended as a support to professional advice and care. Please refer to the Electronic Medicines Compendium, British National Formulary, SmPC, NICE guidelines (NG 87), local guidelines, local care pathways and the local drug formulary as required.

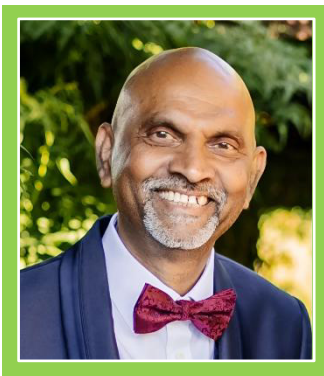
About the Authors

Dr Chinnaiah Yemula has worked as a Consultant Community Paediatrician in Bedford for over 25 years. He has a specialist interest in the fields of ADHD, behaviour, sleep and bedwetting difficulties in children and young people.

He has been the Guest Editor for ADHD and ASD focus issues of the journal 'Cutting Edge Psychiatry in Practice'. He has presented his work (posters, talks, lectures, courses) within the UK and several other countries, including India, Ireland, Canada, Japan, Australia and China.

He has published several educational resources (story books, parental guides, ebooks, leaflets and flip charts) for children, teenagers, parents/carers and healthcare professionals.

He is a strong advocate of patient education and collaborative work with children and families to achieve holistic care with the best outcomes.



Dr Nivedita Bajaj, FRCPCH, is a Consultant Community Paediatrician and is employed by the East and North Herts NHS Trust.

As Neurodevelopmental Paediatrician, she specialises in complex neurodisability and neurodevelopmental conditions supporting children and young people with ADHD, autism, FASD, developmental delay, epilepsy, cerebral palsy and related conditions. She has practised paediatrics for over three decades.

She chairs the George Still Forum, the UK's national ADHD forum. A regular speaker at national and international conferences, Dr Bajaj has authored numerous psychoeducation resources for children, young people, carers and professionals.



Professor Frank M C Besag is a Consultant Neuropsychiatrist at the East London Foundation NHS Trust. He serves as visiting Professor at the Institute of Psychiatry, Kings College London (KCL) and has served as visiting Clinical Professor at the University College London School of Pharmacy.

He teaches regularly at a British Association of Psychopharmacology course and at KCL. He is a fellow of four UK Royal Colleges.

His special interests include epilepsy, autism, ADHD, tic disorders, sleep, catatonia, brain-behaviour relationships and psychopharmacology.

He has over 250 publications, with over 8500 citations and has lectured in more than 30 countries.

His passion is to implement evidence-based practice in a way that helps individual children, young people and their families.



References: Electronic Medicines Compendium; British National Formulary; NICE Guidelines (NG 87); Cortese et al. Common pitfalls, and how to avoid them, in child and adolescent psychopharmacology: Part I; Journal of Psychopharmacology 2024, Vol. 38(4) 311 –317; Prescribing and switching between modified-release methylphenidate – NHS SPS - Specialist Pharmacy Service – The first stop for professional medicines advice

Resources: Understanding ADHD, Autism and other Neurodiverse conditions in Small Bites (Padlet for children and families) – Click [HERE](#) to access.
Neurodiversity Resources for Healthcare Professionals (Padlet for HCP) – Click [HERE](#) to access.