Medicines Information Bulletin

Avon and Wiltshire Mental Health Partnership NHS Trust

October 2023

Managing ADHD Medicine Shortages in ADULTS: Advice for Primary Care (October – December 2023)

Situation

There are supply disruptions affecting a wide range of medicines used in the treatment of attention deficit hyperactivity disorder (ADHD). This disruption is due to manufacturing issues and also an increase in global demand. The medicines supply notification is available here.

This bulletin has been developed in collaboration with ADHD specialists and other healthcare colleagues across BSW and BNSSG integrated care systems.

Background

The medicines most commonly used in the treatment of ADHD are stimulant medicines (including methylphenidate, lisdexamfetamine and dexamfetamine), atomoxetine and guanfacine. NICE guidance recommends that stimulants are considered first line due to their efficacy and that where stimulants are not efficacious, poorly tolerated or are not suitable then non-stimulants can be considered.

The first line options for initiation in adults and children does vary and treatment is highly individualised. The licensing of medicines and specific brands (available in the BNF and cBNF) does vary for adults and children and should be considered when making prescribing decisions.

The following brands and strengths are currently unavailable, however other brands and strengths will be unable to meet the increased demand and will be impacted.

Methylphenidate
Equasym XL® 10, 20 and 30mg
Xaggitin XL® 18 and 36mg
Concerta XL® 54mg
Xenidate XL® 27mg

Lisdexamfetamine
Elvanse® – all strengths
Elvanse® Adult – all strengths

Guanfacine
Intuniv® - all strengths

Immediate release formulations of the stimulants remain widely available however supply of these is unlikely to meet increased demand; switching to these formulations can be difficult to manage and the immediate release preparations are more liable to misuse and diversion. Switching to immediate release should only be undertaken by, or on the advice of, specialist teams.

Atomoxetine
This has already been unavailable for several months and is expected to come back in stock before the other ADHD medicines listed above.

Supply issues for the above medicines are expected to resolve between October and December 2023, dependant on the brand and strength. Specialist Pharmacy Services are keeping an up to date list of availability this can be found here.

Assessment

There are patients prescribed the affected products under a shared care agreement from the GP with other patients still receiving prescriptions from their specialist team. The exact number of affected patients is not known however the following data has been obtained from the Integrated Care Boards, these numbers show prescribing within primary care over a one month period and do not reflect patients still in receipt of prescriptions from their specialist provider (such as AWP, Sirona or a private specialist). These numbers are for all patients, not just adults.

BSW Figures

- 385 patients prescribed affected brands and strengths of methylphenidate
- 594 patients prescribed lisdexamfetamine
- 50 patients prescribed guanfacine

BNSSG Figures

- 1604 patients prescribed affected brands and strengths of methylphenidate
- 1041 patients prescribed lisdexamfetamine
- 15 patients prescribed guanfacine

Recommendations

General Advice

- **Patients should be advised to contact different pharmacies to try to obtain their supply of ADHD medicine** – Different chemist multiples (i.e. Boots, Superdrug, Rowlands etc) and independents will use different suppliers so it is always worth trying a few different pharmacies to obtain medicines.
- **Clinicians should think very carefully about new initiations of ADHD medicines** – Only certain methylphenidate products are currently available and supply is not guaranteed. When a new diagnosis is made the clinician should consider whether the initiation of pharmacological treatment could wait until supply resolves and whether non-pharmacological management could be intensified first. There should be no new initiations on the products affected by this shortage.
- **Consider short treatment breaks to prolong supply** – For patients taking stimulant medicines (methylphenidate and lisdexamfetamine), treatment breaks at weekends / non-working days could be considered. Functioning on these days is likely to be impacted and breaks may not be suitable for everyone, those who have managed treatment breaks in the past could be asked to consider doing this again. Breaks of 1-2 days do not require re-titration of dose and patients would continue on their normal dose when they restart.
- **Prescribers should not prescribe more than 30 days of these medicines at a time** – Access to medicines needs to remain fair and issuing large prescriptions could further exacerbate supply issues.
- **Patients should be given non-pharmacological support and signposted as appropriate – Below is a list of useful resources:**
  - The Royal College of Psychiatrists provides information about ADHD, in the form of a leaflet - http://www.rcpsych.ac.uk/healthadvice/problemsdisorders/adhdinadults.aspx
  - http://www.aadduk.org- This is a website for, and created by, adults with ADHD including information on University and College issues for students with ADHD
  - www.rcpsych.ac.uk/mental-health/problems-disorders/adhd-in-adults - Royal College of Psychiatrist website with information on ADHD

- http://www.addiss.org.uk- National Attention Deficit Disorder Information and Support Service
- www.additudemag.com - An American website with a wealth of information about living with ADHD
- www.howtoadhd.com - A website and Youtube channel dedicated to helping people with ADHD live and work effectively
- https://www.nhs.uk/conditions/stress-anxiety-depression/mindfulness/
- https://www.nhs.uk/apps-library/be-mindful/
- https://www.mind.org.uk/information-support/drugs-and-treatments/mindfulness/how-to-learn-mindfulness/
- The Mindfulness Prescription for Adult ADHD by Lidia Zylowska (2012)

Methylphenidate Advice

Patients are normally advised to remain on the same brand of methylphenidate, this is due to the slightly differing release profiles which can impact the duration of action and plasma level peaks. Given the current supply issues, it may be necessary to switch patients on to a bioequivalent brand, which could have a slightly different release profile. Although not ideal, it may be the only way of continuing supply and managing the patient's symptoms adequately.

- **Do not switch to immediate release preparations without advice from a specialist service**
- **Do not switch to other medicines without advice from a specialist service**
- **Prescribe an alternative brand that is known to be available** - some brands do remain available, prescribers in primary care should liaise with community pharmacies and utilise the SPS advice page to prescribe a bioequivalent product that remains available. Further switching advice in table 1 on the next page.

Patients should be informed that where there is a brand change there could be a change in release profile which could impact efficacy of the medicine throughout the day. This is least likely when switching between brands of the same type. The medicine may also look very different so reassurance should be given. Switching between brands could result in the following:

- Effects of the stimulant could wear off earlier in the day, particularly if switching to a brand which has a lower proportion of modified release methylphenidate (e.g. switching from Equasym® with 70% MR to Medikinet XL® with 50% MR)
- Problems sleeping, particularly if switching to a brand with a higher proportion of modified release methylphenidate (e.g. switching from Equasym® with 70% MR to Affenid® with 78% MR)
- Possible increase or decrease in side effects

Table 1 – Available brands of methylphenidate and suggested switches

Affected medicines listed in the national patient safety alert are shown with a ~~strikethrough~~. This table does not show current availability as this could change on a daily basis.

Type 1 Products				
Product and IR:MR ratio	Strengths	Appearance	Practical information	Alternative product
Concerta XL® 22% IR : 78% MR	18mg 27mg 36mg ~~54mg~~		• Can be taken with or without food • Swallow whole – do not chew, break, divide or crush	Prescribers are normally advised to prescribe the same brand of methylphenidate as there are subtle differences and switching can cause differences in symptoms control and side effects. If there is product unavailability then type 1 products can be interchanged. Switching between type 1 products is unlikely to be too problematic, patients may notice subtle differences in control of symptoms and side effects.
Xenidate XL® 22% IR : 78% MR	18mg ~~27mg~~ 36mg 54mg		• Take with or without food • All tablet strengths except 18mg can be divided	
Matoride XL® 22% IR : 78% MR	18mg 36mg 54mg		• Take with or without food • Swallow whole – do not chew, break, divide or crush	
Affenid XL® 22% IR : 78% MR	18mg 27mg 36mg 54mg		• Take with or without food • Swallow whole – do not chew, break, divide or crush	
Delmosart® Xaggitin® 25% IR : 75% MR	~~18mg (Xaggitin only)~~ 27mg ~~36mg (Xaggitin only)~~ 54mg		• Take with or after breakfast • Swallow whole – do not chew, break, divide or crush	
Type 2 Products				
Product	Strengths	Appearance	Practical information	Alternative product
Equasym XL® 30% IR : 70% MR	~~10mg~~ ~~20mg~~ ~~30mg~~		• Take before breakfast • Swallow whole, or sprinkle contents onto	For adults on once daily Equasym® switch to a type 1, unless type 1s have been found to be intolerable in the past. Equivalent doses are below: 10mg* = 18mg of any type 1 product

			• apple sauce and swallow straight away. • Therapeutic plasma levels for approx. 8 hours	20mg* = 27mg of any type 1 product 30mg = 36mg of any type 1 product 40mg* = 45mg of any type 1 product 50mg* = 54mg of any type 1 product 60mg = 72mg of any type 1 product * not directly equivalent, represents nearest equivalent dose For adults on twice daily Equasym® switch to the same dose of type 3 twice daily (BD). e.g. Equasym® 20mg BD could switch to Medikinet XL® 20mg BD. The above switches are likely to cause more noticeable differences in symptom control and side effects than switching between type 1 products.
Type 3 Products				
Product	Strengths	Appearance	Practical information	Alternative product
Medikinet XL® 50% IR : 50% MR	5mg, 10mg, 20g, 30mg, 40mg, 50mg, 60mg		• Take with or without food • Swallow whole, or open and sprinkle onto apple sauce and swallow straight away • Therapeutic plasma levels for approx. 8 hours • Do not chew or crush	Both type 3 products are currently available. Medikinet XL® and Metyrol XL® can be interchanged if needed. If a switch to a type 1 product was needed then switching advice is as per type 2 products above. Switching from type 3 to a type 1 is more likely to cause noticeable changes in symptoms control and side effects.
Metyrol XL® 50% IR : 50% MR	10mg, 20mg, 30mg, 40mg, 60mg		• Take with or without food • Swallow whole, or open and sprinkle onto apple sauce and swallow straight away • Therapeutic plasma levels for approximately 8 hours • Do not chew or crush	

Lisdexamfetamine Advice

- **Do not switch to immediate release preparations without advise from a specialist service**
- **Do not switch to other medicines without advice from a specialist service**
- **Where patients have run out of supply refer back to the specialist team outlined on the shared care agreement**

Guanfacine Advice

- **GP surgeries and specialist teams should promptly and proactively identify patients prescribed guanfacine and refer them back to their specialist team** – These patients should be referred to the specialist team outlined on the shared care agreement. Abrupt cessation of guanfacine can result in rebound hypertension, therefore patients need to be weaned off the medicine where possible and will require specialist input.

  Where abrupt cessation of guanfacine occurs any rebound hypertension typically resolves within 2 – 4 days[1,2] and is usually asymptomatic and clinically insignificant[3,4]. There have been rare reports of hypertensive encephalopathy. Patients should be advised to check their blood pressure 2 and 4 days after abrupt cessation. If their BP remains raised then they should check weekly until it returns to normal. Blood pressure readings can be done at their GP surgery or their local pharmacy. If there are signs of clinically significant rebound hypertension then this should be managed appropriately.
- **Do not switch to other medicines without advice from a specialist service** – guanfacine is recommended after other medicines have failed. Switching to alternative medicines requires specialist input.

Atomoxetine

- **Do not switch to other medicines without advice from a specialist service** – Normally atomoxetine is recommended where stimulants are not suitable, meaning switching options are extremely limited. It is currently expected that atomoxetine will be the first ADHD medicine to become available, so in most instances it is preferable to wait for supply to return to normal.

Seeking Specialist Advice

All ADHD medicines prescribed by primary care are within the framework of a shared care agreement. Any queries should go back to the provider who initiated treatment named within that shared care framework.

For advice from AWP Adult ADHD team please email awp.specialisedADHDservices@nhs.net using the subject line “Medicines advice due to shortages” so that queries can be prioritised accordingly.

If a diagnosis was obtained through another qualified provider such as a private provider through self-pay route or through Right to Choose, then primary care should refer any queries back to this provider as per shared care.

References

1) Zamboulis C, et al. Withdrawal of guanfacine after long-term treatment in essential hypertension. Observations on blood pressure and urinary noradrenaline. *Eur J Clin Pharmacol.* 1981, 19(1)
2) Reid et al. Guanfacine: effects of long-term treatment and withdrawal. *Br J Clin Pharmacol* 1980, 10 (suppl1)
3) Newcorn JH et al. Extended release guanfacine hydrochloride in 16-17 year olds with ADHD: a randomised-withdrawal maintenance efficacy study. *J Child Psychol & Psych.* 2016, 57:6