

COMMERCIAL-SENSITIVE

Supply Issues Update for Primary and Secondary Care: May 2019

This report has been produced by the Department of Health and Social Care (DHSC) Medicine Supply Team. We aim to update this report monthly to provide an update on current primary and secondary care medicine supply issues that we are working on. This information is confidential to the NHS as it may be commercially sensitive; please do not upload to websites in the public domain. Please do share with relevant colleagues and networks.

Contents

New Issues	3	Injectables.....	7
Injectables	3	Dimercaprol 50mg/ml injection.....	7
Ancotil (flucytosine) injection.....	3	EpiPen and EpiPen Junior	8
Arsenic acid.....	3	Erwinase injection.....	8
Midazolam injection	3	Fentanyl 50mcg/ml 2ml injection	8
Pentamidine 300mg in 5mL injection.....	4	Fludarabine 50mg/2ml injection	8
Orals.....	4	Gadovist preparations	8
Cycloserine 250mg capsules.....	4	Idarubicin 10mg injection	9
Epanutin (phenytoin) 50mg Chewable		Mivacron (mivacurium chloride) injection	9
Infatabs.....	5	Neurobloc (Botulinum Toxin Type B).....	10
Labetalol tablets	5	Tetracosactide 1mg depot injection	10
Methadone 1mg/ml oral solution sugar free	5	Urokinase injection	10
Qlaira tablets	6	Orals.....	10
Questran Powder for Oral		Adalat (nifedipine) tablets/capsules.....	10
Suspension/Questran Light (colestyramine)		Bumetanide tablets.....	10
4g sachets	6	Carbagen (carbamazepine) various	
Rifadin (rifampicin) 300mg capsules	6	preparations.....	11
Sabril (vigabatrin) tablets	6	Hormone Replacement Therapy products	
Sinemet (co-careldopa) tablets	6	(HRT)	11
Thorens (colecalfiferol) 10,000i.u./ml oral		Lofexidine tablets.....	12
drops.....	6	Metopirone 250mg capsules	12
Xanax (alprazolam) tablets	7	Metoprolol 50mg and 100mg tablets.....	12
Zolmitriptan 2.5mg orodispersible tablets....	7	Olena (fluoxetine) 20mg dispersible tablets	12
Eye drops/treatments	7	Sandimmun (ciclosporin) capsules	12
Iopidine (apraclonidine hydrochloride) 0.5%		Stemetil (prochlorperazine) 5mg in 5ml oral	
eye drops	7	syrup	13
Ongoing Issues.....	7	Tizanidine 4mg tablets.....	13
		Trifluoperazine tablets.....	13

COMMERCIAL-SENSITIVE

Vibramycin-D (doxycycline) dispersible 100mg tablets.....	13	Hypurin Bovine insulin.....	16
Zaditen (ketotifen) 1.38mg/5 ml oral solution x 300ml	13	Modecate (fluphenazine decanoate) injection	16
Others	14	Resolved (date resolved)	16
Gastrografin.....	14	• Abacavir 300mg tablets (1/5/19).....	16
Eye drops/treatments	14	• Ativan (lorazepam) 4mg/ml injection (11/4/19).....	16
• Lacri-Lube	14	• Bleomycin injection (18/4/19).....	16
• Betnesol Eye Ointment 0.1%.....	14	• Creon 25,000 (9/4/19)	16
• Betnesol (betamethasone 0.1%) eye/ear/nose drops	14	• Epanutin Ready Mixed Parenteral 250mg/5ml (17/4/19)	16
• Predsol (prednisolone) 0.5% eye drops 14		• Fendrix (Hepatitis B renal vaccine) (15/04/2019).....	16
Vaccines.....	14	• Flupentixol injection (04/19)	16
Hepatitis B Vaccines	14	• Hydrocortisone sodium succinate 100mg injection (04/19)	16
Menveo.....	15	• Imigran (sumatriptan) injection (04/19) 16	
Pneumococcal Polysaccharide Vaccine	15	• Levomepromazine 25mg/mL injection (29/04/2019).....	16
Rabipur (Rabies vaccine)	15	• Menadiol tablets (12/4/19)	16
Discontinuations.....	15	• Sevelamer carbonate 800mg tablets (04/19)	16
NEW Aerivio Spiromax (salmeterol/fluticasone) 50mcg/500mcg inhalation powder (Teva)	15	• Tizanidine 2mg tablets (16/4/19)	16
NEW Co-beneldopa 100/25mg capsules (Teva) -.....	15		
NEW Codeine Phosphate 60mg injection (Ethypharm).....	16		

COMMERCIAL-SENSITIVE

Information provided w/c 6th May 2019

New Issues

Injectables

Ancotil (flucytosine) injection

- Mylan, the sole supplier of flucytosine, have experienced a manufacturing delay with this product.
- They are currently out of stock; further stock is not expected until June 2019.
- There is currently good stock availability within the NHS and information has been shared with regional procurement specialists to request they facilitate sharing between Trusts if stock is required urgently for a patient.
- Specialist importers have confirmed that they have sourced unlicensed stock and some specialist importers currently have stock available.

Arsenic acid

- Teva have advised of issues with Trisenox which are anticipated to lead to a shortage in UK market from early May 2019 until normal supply, which is expected to be resumed from w/c 10th June 2019.
- Teva has decided to import into the UK an equivalent formulation containing 1mg/ml of arsenic trioxide (known as Phenasen by Phebra Pty Ltd) which is a licensed product from Australia but will be classified as an unlicensed product in the UK. This unlicensed product should be ordered directly from Teva.
- Further details can be found in the attached DHCP letter.
- Flexipharma Austrading Limited (FAL) have recently received MHRA approval for a new arsenic trioxide product and will be marketing under the name arsenic trioxide phebra. It is a vial presentation which is a generic of the originator product. This product was previously supplied under its Australian tradename/registration
- Stock is planned and on track to be available in Mawdsleys wholesaler during the w/c 27th May

Midazolam injection

- Several suppliers currently have supply issues with midazolam injection.
- The following midazolam presentations are currently out of stock from all suppliers:

Product		
Midazolam and concentration per ml	Size of Amps	Marketed as
Midazolam 1mg/ml solution for injection ampoules	5ml	5mg/5ml
Midazolam 5mg/1ml solution for injection ampoules	10ml	50mg/10ml
Midazolam 1mg/ml solution for injection ampoules	50ml	50mg/50ml

- Further stock of all presentations is currently expected by the end of May 2019.
- There is sufficient stock of **Midazolam (5mg/ml) 10mg/2ml** ampoules to support demand for the duration of this supply issue from Hameln and Accord.
- Suppliers have confirmed they cannot support this shortage with any other remaining presentations of midazolam injection as there is insufficient stock available to support an increase in demand.

COMMERCIAL-SENSITIVE

- **This is a high-risk supply issue as per the Rapid Response Report published in 2008 regarding reducing the risk of overdose with midazolam injection in adults and the associated Never Event. The Rapid Response Report and Never Event framework can be found at the following links: [SPS website](#) & [Never Event framework](#)**

Local action required:

- Review remaining stock holdings of midazolam injection. Please **do not** switch to any of the other remaining presentations of midazolam injection as there is insufficient stock available to support an increase in demand.
- In collaboration with the local Medication Safety Officer and relevant clinical leads, organisations need to undertake local risk assessment to reduce the risk of overdose. Please consider local actions in the following order:
 1. Risk assess supply of remaining stocks of midazolam injection; consider ring fencing supply to highest risk clinical area
 2. Collaborate and share stock locally where possible.
 3. Where appropriate, please consider alternative drugs for different clinical indications; especially conscious sedation.
 4. **Last line option:** If midazolam (5mg/ml) 10mg in 2ml is the only suitable alternative then a local risk assessment should be undertaken and risk mitigation actions need to be considered; for example: named patient supply only, raising staff awareness that high strength midazolam is in use (e.g. use of posters / additional labelling). Consider additional checks when preparing and administering, ensure only one strength of midazolam is available in a clinical area (to avoid confusion).
- **As is standard practice, please ensure that flumazenil injection is readily available in all areas where midazolam is used.**
- Please review local protocols and ensure that all those affected are aware of this issue and that particular consideration is given to mitigating the risks associated with switching to alternative higher strength midazolam presentations.

Pentamidine 300mg in 5mL injection

- Sanofi anticipate there will be a short term out of stock period of this product. Stock is unlikely to be available from week commencing 6th May and resupply is expected to be week commencing 20th May 2019.
- Information about this issue has been cascaded to regional leads by NHS England Commercial Medicines Unit and information about availability of unlicensed imports has been shared with regional procurement leads.
- Trusts are asked to review current stock holdings to determine if stock will be required during the short term out of stock period.

Orals

Cycloserine 250mg capsules

- King Pharmaceuticals are currently supplying cycloserine 250mg tablets which expire on 31st May 2019.
- King have confirmed that new stock should be available prior to the current stock expiring.
- We are working with King Pharmaceuticals to expedite the supply of cycloserine capsules and further updates will be shared once available.

COMMERCIAL-SENSITIVE

Epanutin (phenytoin) 50mg Chewable Infatabs

- Pfizer have informed DHSC of a temporary supply issue with Epanutin Infatabs from 15th May until November 2019 due to a delay in manufacturing.
- To help mitigate the shortage Pfizer has obtained approval from the MHRA to import stock of Dilantin (phenytoin) Infatabs from Canada.
- Canadian packs of Dilantin are considered as an unlicensed product in the UK. A copy of the product information and the DHCP letter can be found attached to this update.
- Epanutin 30 mg/5 ml Oral Suspension remains available, however, supplies are only available to meet normal market demand as such patients should not be switched to Epanutin Oral Suspension as this may precipitate a shortage of this presentation.

Labetalol tablets

- There are two suppliers of labetalol tablets in the UK, Mylan and Recipharm:
 - Mylan have had a delay in resupply due to an internal delay in serialisation of FMD packs, further stock is expected in early-mid May.
 - Recipharm have experienced an issue with the active pharmaceutical ingredient and are currently unable to provide a resupply date.
- Prescribers should be aware that no new patients should be commenced on labetalol during this time as there are currently very limited stocks available.
- Patients who do not have sufficient supplies to last until early May and who are unable to obtain supplies of labetalol will need to be switched to an appropriate alternative treatment during this time.
- Please see a memo developed by UK Medicines Information with input from national experts at NHSE and NHSI, which advises on management options for patients, including the use of alternative anti-hypertensives during pregnancy.
<https://www.sps.nhs.uk/articles/shortage-of-labetalol-tablets/>
- Manufacturers of both nifedipine modified release and methyldopa can support additional demand on their products during this time.
- Different versions of modified-release preparations may not have the same clinical effect. Prescribers should liaise with their community pharmacy to determine which brands of nifedipine modified release tablets are currently available in your area.
- The manufacturers of carvedilol and metoprolol have indicated they would be unable to meet demand if patients were switched to these products. Manufacturers of bisoprolol, atenolol and propranolol have indicated they have capacity to support additional demand.
- Specialist importers have identified unlicensed stock they can bring into the UK from abroad. Lead times for these products vary between 7 and 21 days.

Methadone 1mg/ml oral solution sugar free

- Martindale are out of stock Physeptone 1mg/1mL oral solution sugar-free 2.5L presentation.
- Methadone 1mg/1mL oral solution sugar-free 2.5L presentation is available however there are insufficient stocks to allow a switch from the branded product.
- Methadone and Physeptone 1mg/mL oral solution 500mL continues to remain available.
- Pharmacies will need to use the 500ml product in place of the 2.5L for the duration of this issue.
- Updates on a resupply date for the 2.5L presentation will be shared once confirmed.

COMMERCIAL-SENSITIVE

Qlaira tablets

- Bayer are out of stock of Qlaira (estradiol valerate/dienogest) tablets until the 27th May 2019 due to logistical issues; there are no direct alternatives for this product.

Questran Powder for Oral Suspension/Questran Light (colestyramine) 4g sachets

- Bristol-Myers Squibb (BMS) will be out of stock of Questran Powder 4g sachets until August 2019.
- Emergency supply measures are already in place via Alliance Healthcare for Questran Light sachets and will be sufficient to support both products, if a switch is deemed clinically appropriate. This process will remain in place until May to avoid a total out of stock situation. Contact Alliance Healthcare for further information on the emergency supply process.

Rifadin (rifampicin) 300mg capsules

- Sanofi, the manufacturers of rifampicin 300mg capsules, are currently out of stock of rifampicin 300mg capsules and resupply is expected week commencing 20th May.
- Rifadin (rifampicin) 150mg capsules from Sanofi remain available.
- Generic manufacturers of rifampicin 300mg capsules, Mylan and Sandoz, currently have stock available and can meet additional demand until Rifadin 300mg capsules become available.

Sabril (vigabatrin) tablets

- We are aware that Sanofi have experienced some short-term local distribution issues with Sabril tablets. This has now resolved however, there will be order restrictions based on historic demands to maintain supplies until the next delivery at the end of May. Any pharmacy struggling to obtain supplies should contact Sanofi customer services directly.

Sinemet (co-careldopa) tablets

- Ongoing issues with the supply of Sinemet from MSD due to capacity constraints at their manufacturing facility - please see attached company letter.
- The latest update on the current supply position is:
 - **Sinemet 10/100mg** - currently out of stock; further stock expected in early May;
 - **Sinemet 25/250mg** - currently out of stock; further stock expected in early June;
 - **Sinemet 12.5/50mg** - currently out of stock; further stock expected at the end of May;
 - **Sinemet Controlled Release 50/200mg** - currently out of stock; further stock is expected at the end of May.
- DHSC has been working with generic suppliers and can confirm generic co-careldopa supplies in the above strengths will be available to support.
- All other Sinemet preparations are unaffected and remain available.
- DHSC are continuing to work with MSD and generic manufacturers to manage the overall supply position over the coming months and will provide updates as information becomes available.

Thorens (colecalfiferol) 10,000i.u./ml oral drops

- Galen are out of stock of Thorens 10,000i.u./ml oral drops until end of June 2019.
- Several other strength colecalfiferol oral drops remain available from alternative suppliers.
- Please see the link below for UKMI advice on alternate preparations:

<https://www.sps.nhs.uk/articles/shortage-of-thorens-colecalfiferol-10-000-i-u-ml-oral-drops/>

COMMERCIAL-SENSITIVE

Xanax (alprazolam) tablets

- Pfizer are out of stock of Xanax 250microgram tablets until the 13th of May 2019 due to API supply constraints; Xanax 500microgram tablets are currently available

Zolmitriptan 2.5mg orodispersible tablets

- Several suppliers are currently experiencing supply issues with zolmitriptan 2.5mg orodispersible tablets, however, further supplies are expected w/c 6th May.
- Grunenthal, manufacturers of Zomig Rapimelt, are out of stock of this product from May until mid-July 2019. Zomig Rapimelt 5mg and Zomig 2.5mg tablets remain available but are unable to support full uplift in demand.

Loestrin 20 and Loestrin 30 tablets

- Galen Limited are currently out of stock Loestrin 20 tablets and anticipate they will go out of stock of Loestrin 30 tablets at the beginning of June and are currently unable to provide a resupply date.
- Galen Limited have produced the attached *Dear Health Care Professional* letter providing further details on the issue.

Eye drops/treatments

Iopidine (apraclonidine hydrochloride) 0.5% eye drops

- Novartis, the sole UK supplier of iopidine 0.5% eye drops, will be out of stock until 1st June 2019.
- Please see the link below for clinical advice from the Royal College of Ophthalmologists regarding suitable management <https://www.rcophth.ac.uk/standards-publications-research/quality-and-safety/medicines-safety/drugs-shortages/>

Ongoing Issues

Injectables

Dimercaprol 50mg/ml injection

- Advanz Pharma, sole supplier of this product, have advised that dimercaprol injection will be unavailable from the end of February until July 2019.
- See the link below for advice by RCEM/NPIS on antidote availability in Emergency Departments: <http://scanmail.trustwave.com/?c=8248&d=k6Xu3H1CL5IR-wsS7AOdJI7vHz4ZQXW-N1bfd1XHwA&u=https%3a%2f%2fwww%2esps%2enhs%2euk%2farticles%2fregional-medicines-optimisation-committee-antidotes-and-rums-position-statement%2f>
- NHS Trusts should contact the NPIS for clinical advice if required.

COMMERCIAL-SENSITIVE

EpiPen and EpiPen Junior

- The supply situation for EpiPen and EpiPen Juniors continues to improve, and further stock is due in the coming months.
- All preparations of EpiPen, Emerade and Jext adult and junior are currently available via wholesalers.
- Stock of EpiPen 0.3mg device and EpiPen Junior is available via a prescription validation process. Information about this process is available on the EpiPen website under the 'Instruction to Pharmacists' section: <http://www.epipen.co.uk/>

Erwinase injection

- Porton Biopharma, the manufacturer of Erwinase, have had ongoing manufacturing issues affecting this product for the past 1-2 years.
- Jazz Pharmaceuticals distributes Erwinase and currently have supplies available.
- However, it is likely ongoing intermittent supply issues will continue during 2019.
- Jazz works closely with the clinical networks and supplies are prioritised on a patient need basis and in conjunction with the treating clinicians.

Fentanyl 50mcg/ml 2ml injection

- There have been recent issues affecting fentanyl injection:
 - Advanz remain out of stock until June 2019.
 - Martindale are currently in stock but unable to support the full market during this time.
 - Hameln have been able to import sufficient German licensed stock to support customers unable to be supported by Martindale for the duration of this issue. This stock will be considered unlicensed in the UK. This stock arrived yesterday and is now available to order direct from Hameln.
 - Attached is a letter from Hameln that provides further information about the imported product and an order form which should be used when placing orders.
 - A specific communication detailing the affected regions has been cascaded to Trusts.

Fludarabine 50mg/2ml injection

- Teva have a supply issue with fludarabine solution for injection and expect to have limited supplies until the next delivery in August due to API issues.
- Current updates from Accord:
 - The 50mg/2ml solution for injection - limited supplies available through wholesalers
 - The 50mg powder - limited supplies available through AAH and Alliance
- Sanofi have limited stock of the 50mg powder presentation (Fludara) and are not able to support any increase in demand.
- Specialist importers can source unlicensed fludarabine injection with variable lead times. Please contact your regional procurement leads for further information.

Gadovist preparations

- Manufacturing issues at Bayers' Berlin site is affecting supplies of Gadovist. This issue is likely to go on for several months.
- We have engaged with Bracco and Guerbet regarding their supply position on other gadolinium containing products. Both companies have good supplies available and have enough stock to support this supply issue.
- Please see full summary/stock position in table below.

COMMERCIAL-SENSITIVE

Manufacturer	Presentation	Stock Availability
Bayer Plc	Gadovist 1mmol/ml solution for injection 10ml PFS	Currently OOS until the next delivery that is scheduled to arrive in July*.
Bayer Plc	Gadovist 1mmol/ml solution for injection 15ml vials	Currently in-stock . It is anticipated that current stock levels will be sufficient to maintain an in-stock status until the next planned delivery in August*.
Bayer Plc	Gadovist 1mmol/ml solution for injection 5ml PFS	Currently OOS until the end of July*.
Bayer Plc	Gadovist 1mmol/ml solution for injection 7.5ml PFS	Currently OOS . The next delivery is scheduled for early July*.
Bayer Plc	Magnevist 2mmol/l solution for injection 20 ml PFS	Currently OOS . Next delivery is due in July. However, anticipated stock quantities lead to the expectation that each delivery will be consumed by back-orders. Therefore, supply will continue to be significantly interrupted/reduced until at least Q3 2019.
Guerbet UK	Dotarem 5ml vial; 10ml vial; 10ml PFS; 15ml vial; 15ml PFS; 20ml vial; 20ml PFS	All presentations in stock and Guerbet have enough stock to support the shortage
Bracco UK Ltd	ProHance 0.5mmol/ml 10ml PFS; 10ml vial; 15ml vial; 17ml PFS; 20ml vial	All presentations in stock and Bracco have enough stock to support the shortage

* Overall, it is anticipated that restricted supply will be likely to continue through Q2/Q3 2019, due to production problems.

Idarubicin 10mg injection

- Pfizer are out of stock of idarubicin 10mg injection across all depots in the UK due to a quality issue.
- Accord are the only alternative license holder and do not actively manufacture this product. They have no further stock available to support this supply issue. We will continue to work with Accord to look at future manufacturing scheduling.
- We have been working with the importers and companies have confirmed that limited supplies are available from Europe and USA – hospitals requiring stock should place orders NOW for unlicensed imports as lead times will vary.
- Hospitals who have surplus stock have been asked to consider sharing supplies locally.
- Pfizer are working with the supply chain to try and bring an alternative formulation from Australian into the UK for the start of June. Further communications will be issued to secondary care once we have more information about this product and date of availability.

Mivacron (mivacurium chloride) injection

- Aspen Pharma have short-dated stock of mivacurium chloride 2mg/ml 5ml and 10ml ampoules. Expiry date is October 2019 and stock is available through Movianto. Future deliveries are expected in June and July for the two ampoule sizes, respectively.
- There are alternative non-depolarising neuromuscular blocking drugs in the benzylisoquinolinium group available on the market. Please consult local anaesthetists for advice on switching between agents.

COMMERCIAL-SENSITIVE

Neurobloc (Botulinum Toxin Type B)

- Neurobloc (Botulinum Toxin Type B) will not be available until late August/early September 2019 due to the product being divested from Eisai to Sloan Pharma.
- DHSC has worked with the specialist importers and can confirm that unlicensed Botulinum Toxin Type B is available; lead times vary.

Tetracosactide 1mg depot injection

- Mallinckrodt have informed DHSC that tetracosactide 1mg injection will be unavailable until the second half of 2019.
- Specialist importers have sourced an unlicensed product.
- NHS Trusts should continue to order unlicensed stock from the specialist importers. Further information has been circulated to regional procurement specialists.

Urokinase injection

- Further to our previous communications on urokinase injection, Syner-med have now confirmed that all three urokinase strengths, 10,000unit, 25,000unit and 100,000 unit, are now **out of stock** and anticipated resupply dates are provided below:
 - 10,000IU – further stock due no earlier than July;
 - 25,000IU –further stock due end June;
 - 100,000IU – further stock due no earlier than July.
- We are aware that unlicensed imports are not readily available or in sufficient quantities to fully meet demand during this time and therefore Trusts are asked to review their current usage of urokinase and consider using an alternative product. Details of suggested alternative products can be found in a memo produced by UKMi (see below).
- <https://www.sps.nhs.uk/articles/shortage-of-urokinase-injection-syner-kinase-10000-iu-25000-iu-and-100000-iu-powder-for-solution-for-injection-or-infusion/>
- We have been in contact with all the suppliers of the suggested alternatives and can confirm that they have sufficient supplies available to support during this time.
- Additional information for the product Taurolock is also attached. If you would like to place orders for this product, please contact customerservice@kimal.co.uk and copy louise.kelly@kimal.co.uk

Orals

Adalat (nifedipine) tablets/capsules

- As previously communicated, there are ongoing supply issues with the Adalat range. Generic supplies are available. Please see the attached letter from Bayer and the shortages memo from UKMi:

<https://www.sps.nhs.uk/articles/shortage-of-adalat-nifedipine/>

Bumetanide tablets

- Mylan, the sole supplier of bumetanide 5mg tablets, have informed DHSC they are out of stock of this strength with next deliveries planned for the end of July 2019.
- Supplies of the 1mg tablet remain available.
- There is a bumetanide 1mg/5ml liquid available from Chemidex however there is insufficient stock to cover an uplift in demand.

COMMERCIAL-SENSITIVE

Carbagen (carbamazepine) various preparations

- As carbamazepine is considered a Category 1 anti-epileptic medication, patients should normally be maintained on the same brand, however Mylan (manufacturers of Carbagen) have informed DHSC that the following preparations of Carbagen will be unavailable until mid/late 2019.
- The affected products are:
 - Carbagen 200mg immediate release tablets – unavailable until mid-2019
 - Carbagen 400mg immediate release tablets – unavailable until late 2019
 - Carbagen 200mg and 400mg modified release tablets – unavailable until late 2019
- Patients currently prescribed Carbagen tablets by brand will therefore need to be switched to an alternative brand of carbamazepine tablets during this time.
- Novartis, the manufacturer of Tegretol tablets, which is the alternative brand of carbamazepine, have confirmed that all presentations are currently available that they are able to support additional demand during this time for all affected strengths and formulations.
- DHSC have worked with NHSE, NHSI and UK Medicines Information to develop a clinical memo, which has been produced to support clinicians in prioritising and switching patients. This is available on the SPS website via the following link: <https://www.sps.nhs.uk/articles/shortage-of-carbagen-carbamazepine-tablets/>

Hormone Replacement Therapy products (HRT)

FemSeven Products

- Theramex, the supplier of FemSeven Conti and Sequi patches are experiencing long term supply issues affecting both products and expect to be out of stock until late 2019.
- This supply issue does not affect supplies of FemSeven Mono.
- Supplies of other HRT patches and products continue to remain available.

Elleste Range

- Mylan, the sole manufacturer of the Elleste HRT product line has reported that some of the Elleste range (Elleste Solo 1mg, 2mg; Elleste Duet Conti; Elleste Duet 1mg) are currently unavailable due to manufacturing issues.
- The resupply date for the Elleste range is now expected to be the end of June 2019.
- As per UKMI advice, please see the table below for equivalent alternatives currently available on the market, if required.

Table 1. Equivalent HRT alternatives for the Elleste HRT range

Brand	Ingredient(s)	Current Availability	Equivalent	Ingredient(s)	Current Availability
Elleste Solo 1mg	estradiol hemihydrate	Out of stock	Progynova 1mg	estradiol hemihydrate	In Stock
			Zumenon 1mg		In Stock
Elleste Solo 2mg	estradiol hemihydrate	Out of Stock	Progynova 2mg	estradiol hemihydrate	In Stock
			Zumenon 2mg		In Stock
Elleste Duet Conti	estradiol 2mg/ norethisterone 1mg	Out of Stock	Kliefem	estradiol 2mg/ norethisterone 1mg	In Stock

COMMERCIAL-SENSITIVE

Elleste Duet 1mg	estradiol 1mg/ norethisterone 1mg	Out of Stock	NovoFem	estradiol 1mg/ norethisterone 1mg	In Stock
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Lofexidine tablets

- Britannia, sole supplier, are no longer supplying BritLofex (lofexidine) tablets due to manufacturing problems (see attached letter).
- Britannia does not yet know the resupply date for the next delivery of BritLofex tablets, but the out of stock period is likely to last several months. This is due to the transfer of the product to a new manufacturer. We have been in discussion with specialist importer companies and they have been unable to source supplies from abroad.
- UKMI have prepared the following shortages memo, which has now been published on the SPS website:
<https://www.sps.nhs.uk/articles/shortage-of-lofexidine-hydrochloride-tablets-200-microgram-britoflex/>

Metopirone 250mg capsules

- DHSC have been informed of a supply issue affecting Metopirone 250mg capsules
- HRA Pharma, the sole supplier in the UK, are experiencing manufacturing issues and as a result are out of stock until July 2019
- This has been communicated to the Endocrinology group at NHS England and should now have been disseminated through their networks

Metoprolol 50mg and 100mg tablets

- There are ongoing supply issues affecting Metoprolol 50mg and 100mg tablets.
- The issue has been caused by some manufacturers discontinuing the products and others having supply difficulties.
- Milpharm/Aurobindo, are currently the sole supplier of both presentations to the UK market.
- Supplies of both presentations are currently available but may be limited, further stock is arriving over the coming weeks however supply is likely to be intermittent for several months.
- Please see the link below for a memo developed by UK Medicine Information with input from clinical experts at NHSE and NHI, which advises on management options for patients affected by this supply issue, including the use of alternative beta blockers, dosing information for these alternative beta blockers and monitoring requirements.
<https://www.sps.nhs.uk/articles/shortage-of-metoprolol-50mg-and-100mg-tablets/>
- The manufacturer of carvedilol has indicated it would be unable to meet demand if patients were switched to this product. Manufacturers of bisoprolol, atenolol and propranolol have indicated they have capacity to support any additional demand on their products.

Olena (fluoxetine) 20mg dispersible tablets

- Advanz Pharma, the sole manufacturer of Olena (fluoxetine) 20mg dispersible tablets, are currently out of stock; further supplies are expected in May 2019.
- An oral solution, fluoxetine 20mg/5ml, is available from alternative manufacturers.

Sandimmun (ciclosporin) capsules

- Novartis have a supply issue affecting Sandimmun capsules due to a manufacturing site transfer.
- All strengths are currently out of stock, resupply is expected mid-June 2019.
- An unlicensed supply of all strengths has been sourced from the Italian market to meet the gap during this period and is available through Clinigen.

COMMERCIAL-SENSITIVE

- Pharmacies can order stock through Clinigen at: Churchfield Road, Weybridge, KT13 8DB, Tel: 01932 824 100, Fax: 01932 824 300 ukcustomerservice@clinigengroup.com
- Novartis have issued a letter (attached) to customers

Stemetil (prochlorperazine) 5mg in 5ml oral syrup

- Sanofi are out of stock of Stemetil oral syrup until November 2019.
- Other presentations of prochlorperazine remaining are:
 - Buccal (maleate) 3mg
 - Injection (mesylate) 12.5mg
 - Tablets (maleate) 5mg
- UKMI have prepared the following shortages memo, which provides potential advice on management options:
<https://www.sps.nhs.uk/articles/shortage-of-stemetil-prochlorperazine-5mg-5ml-syrup/>

Tizanidine 4mg tablets

- There is an ongoing supply issue affecting tizanidine 4mg tablets.
- Niche has limited supplies of the 4mg strength with next deliveries expected w/c 20th May. Next deliveries of the 2mg expected w/c 6th May.
- Teva has limited supplies of the 4mg tablets available through Alliance with a further delivery planned at the end of June 2019. Supplies of 2mg tablets are available.

Trifluoperazine tablets

- There have been ongoing manufacturing issues affecting trifluoperazine 1mg and 5mg tablets causing long term issues with no current date for resupply.
- Concordia and Rosemont have trifluoperazine liquid and good supplies are available.
- We are aware that unlicensed supplies of the 1mg and 5mg tablet are available from both Ennogen and several other specialist importer companies.

Vibramycin-D (doxycycline) dispersible 100mg tablets

- Pfizer have reported a supply issue with Vibramycin-D dispersible tablets and expect to be out of stock until the w/c 6th May 2019.
- Advice from our clinical colleagues at UKMI recommends where doxycycline is indicated in a patient who cannot swallow solid dosage forms, prescribers should refer to local guidance for alternatives or consult microbiologists in more complex cases.

Zaditen (ketotifen) 1.38mg/5 ml oral solution x 300ml

- CD Pharma are currently out of stock of Zaditen oral solution 300ml (no date available for resupply).
- In the interim, they can provide alternative 100 ml packs for Zaditen Syrup (Origin Polish market), which is now available at Alloga.
- The MHRA has approved a variation for CD Pharma to supply this product, which is considered licensed.
- The UK stock will be available once all Polish stock has been exhausted, expected to be mid-2019 (date tbc).
- Please find attached the information letter for further info.
- Zaditen 1mg tablets are not affected by this issue and remain readily available.

COMMERCIAL-SENSITIVE

Others

Gastrografin

- Bayer have a supply issue affecting Gastrografin due to manufacturing constraints.
- Deliveries until June 2019 are expected to be limited and intermittent.
- It is anticipated that stock levels will begin to normalize from the beginning of Q3 2019 after which further deliveries should start to re-stock the market back to normal levels.
- Unlicensed specials importers can source this product from overseas.

Eye drops/treatments

Allergan

- Lacri-Lube - out of stock due to an ongoing manufacturing issue. Allergan are unable to provide a re-supply date at this stage.
- The Royal College of Ophthalmology is aware of the Lacri-Lube shortage and is recommending Xailin Night Ointment.

<https://www.rcophth.ac.uk/standards-publications-research/quality-and-safety/medicines-safety/drugs-shortages/>.

RPH Pharmaceuticals AB

- Betnesol Eye Ointment 0.1% w/w x 3g - RPH Pharmaceuticals AB, who distribute this product through Focus Pharmaceuticals, have advised about the discontinuation of Betnesol Eye Ointment 0.1% w/w x 3g
- RPH Pharmaceuticals are planning to launch a generic Betamethasone Eye Ointment 0.1% w/w x 3g towards the end of 2019.
- Betnesol (betamethasone 0.1%) eye/ear/nose drops - RPH Pharmaceuticals are currently out of stock of betamethasone 0.1% eye/ear/nose drops with a resupply date of late 2019. Martindale Pharma can support the full market during this time.
- Predsol (prednisolone) 0.5% eye drops – RPH Pharmaceuticals is planning to discontinue Predsol eye drops mid-May 2019 and replace with generic prednisolone 0.5% eye drops. The company does not anticipate any gap in supply.

Vaccines

For updates on other vaccine supply position, please refer to PHE's Vaccine Update Bulletin found at the following address:

<https://www.gov.uk/government/collections/vaccine-update#2019>

Hepatitis B Vaccines

Renal dose

- MSD's renal vaccine HBVAXPRO 40micrograms are still out of stock of until further notice. Please see statement: <http://www.msd-uk.com/products/vaccines.xhtml>.
- GSK's Hepatitis B renal vaccine, Fendrix, is currently available.

COMMERCIAL-SENSITIVE

Adult dose

- MSD are out of stock HBVAXPRO 10mcg vaccine until further notice
- GSK are confident they can support the increased demand during this time.

Menveo (meningitis A, C, W, Y):

- GSK have confirmed there is limited supply of Menveo.
- Pfizer have confirmed they are in stock of Nimenrix and currently able to support increased demand.

Pneumococcal Polysaccharide Vaccine (PPV23):

- MSD are the sole UK supplier of this vaccine and although under restriction, supplies are currently available.
- MSD has introduced a limited quantity of a prefilled syringe (PFS) presentation of PPV23 under the brand name PNEUMOVAX® 23 to supplement the current supply of vials. A combination of growing global demand for pneumococcal polysaccharide vaccines, alongside manufacturing constraints, have led to regular interruptions in supply of PPV to the UK since 2017. The introduction of a PFS presentation of PPV is intended to support the continuity of supply and to help address public health need.
- Pneumovax® 23 in the PFS presentation can be ordered in the same way as the PPV in vials through MSD's distribution partner AAH online at <http://www.aah.co.uk> or by phone on 0344 561 8899.
- For more information about the vaccine, please refer to the Summary of Product Characteristics (SmPC).
- PHE's recommendations and guidance to GPs published in February's edition of PHE's Vaccine Update Bulletin (Page 7), continue to apply.

Rabipur (Rabies vaccine)

- GSK is currently experiencing a supply delay with their Rabies vaccine, Rabipur, due to manufacturing constraints.
- Limited supplies are currently available and likely to continue through the first half of 2019.
- Sanofi Pasteur have confirmed they are able to support the full market during this time with their unlicensed Rabies vaccine, Verorab
- NATHNAC have issued further information available at the following link:
<https://travelhealthpro.org.uk/news/389/rabies-vaccine-availability>

Discontinuations

NEW Aerivio Spiromax (salmeterol/fluticasone) 50mcg/500mcg inhalation powder (Teva)

- Teva currently have limited supplies of Aerivio Spiromax 50mcg/500mcg powder inhaler remaining with plans to discontinue this product. Alternative suppliers are in stock of the same strength breath-actuated inhaler however, each formulation has different instructions for use.

NEW Co-beneldopa 100/25mg capsules (Teva) -

- Being discontinued with immediate effect but there maybe stock available within the supply chain. Roche is aware of the situation and stock of Madopar remains available.

COMMERCIAL-SENSITIVE

NEW Codeine Phosphate 60mg injection (Ethypharm)

- Being discontinued from the UK market with immediate effect. Torbay and South Devon NHS Foundation Trust have confirmed that they are able to meet the increase in demand and support the ongoing supply of the product.

Hypurin Bovine insulin (Wockhardt)

- The next products to be discontinued are Bovine Lente Vials and Bovine Neutral Cartridges which have an expiry date of May 2019; supply of these products to the market will cease from the 30/04/19. All the latest information about the discontinuation of bovine insulin can be found on the Wockhardt website: <http://www.wockhardt.co.uk/our-products/bovine-insulin-patient-information.aspx>

Modecate (fluphenazine decanoate) injection

- Manufacture of Modecate (fluphenazine decanoate) injection has ceased
- Existing stock of Modecate Injection (25 mg/ml) will expire in August 2019 – supplies should be ordered now to treat any patients who have yet to be switched to an alternative treatment.
- Existing stock of Modecate Concentrate Injection (100 mg/ml) will expire in August 2020 – stock will not be released after 29 February 2020.
- Prescribers should complete arrangements to transfer patients on Modecate to therapeutic alternatives under medical supervision.
- Some unlicensed importer companies have confirmed that they can source supplies of unlicensed fluphenazine decanoate injection from abroad going forward.

Resolved (date resolved)

- Abacavir 300mg tablets (1/5/19)
- Ativan (lorazepam) 4mg/ml injection (11/4/19)
- Bleomycin injection (18/4/19)
- Creon 25,000 (9/4/19)
- Epanutin Ready Mixed Parenteral 250mg/5ml (17/4/19)
- Fendrix (Hepatitis B renal vaccine) (15/04/2019)
- Flupentixol injection (04/19)
- Hydrocortisone sodium succinate 100mg injection (04/19)
- Imigran (sumatriptan) injection (04/19)
- Levomepromazine 25mg/mL injection (29/04/2019)
- Menadiol tablets (12/4/19)
- Sevelamer carbonate 800mg tablets (04/19)
- Tizanidine 2mg tablets (16/4/19)