**Supply Issues Update for Primary and Secondary Care February 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. Please share with all relevant colleagues and networks.

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**Information provided w/c 25th February 2019**

# New Issues

## Injectables

### Tetracosactide 1mg depot injection

* Mallinckrodt have informed DHSC that tetracosactide 1mg injection will be unavailable from the end of February until mid-2019.
* We have been working with the specialist importers and can confirm that unlicensed products have been sourced.
* NHS Trusts should place orders now with the specialist importer companies as lead times may vary.
* Further information has been circulated to your regional procurement specialists

### Dimercaprol 50mg/mL injection

* Advanz Pharma, sole supplier of this product, have informed DHSC 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 should contact the NPIS for clinical advice if required



### Lucentis 10mg/ml pre-filled syringes

* Novartis have informed DHSC of a short- term interruptions in supply affecting Lucentis 10mg/ml pre-filled syringes
* Further supplies are expected w/c 11th March
* Supplies of the Lucentis 10mg/ml solution for injection remain available

### Flupentixol injection

* NHS England and DHSC have been informed that Mylan will shortly be going out of stock of flupentixol injection as follows;

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Description | Brand | Pack | Out of stock date | Anticipated Resupply Date |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 20MG/1ML | Psytixol | 10 x 1ml | w/c 18 March | 08/04/2019 |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 40MG/2ML | Psytixol | 10 x 2ml | w/c 25 Feb | 16/04/2019 |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 50MG/0.5ML | Psytixol | 10 x 0.5ml | w/c 25 Feb | 08/04/2019 |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 100MG/1ML | Psytixol | 10 x 1ml | w/c 5 March | 04/04/2019 |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 200MG/1ML | Psytixol | 5 x 1ml | w/c 25 Feb | 15/03/2019 |

* Lundbeck have confirmed they can cover the out of stock periods with Depixol (flupentixol) injection. The table below details the Depixol product range.
* All products are available to order through Alliance

|  |  |  |
| --- | --- | --- |
| **Description** | **Brand** | **Pack** |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 20MG/1ML | Depixol | 10 x 1ml |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 20MG/2ML (40mg) | Depixol | 10 x 2ml |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 100MG/1ML | Depixol | 10 x 1ml |
| FLUPENTIXOL SOLUTION FOR INJECTION AMP 200MG/1ML | Depixol | 5 x 1ml |

* Unfortunately, there is no Depixol 50mg injection as part of the product range. In order to administer these doses there would have to be some manipulation of the above products, this will need highlighting to clinical staff and appropriate information and support provided.

## Orals

### Metoprolol 50mg and 100mg tablets

* DHSC has been made aware of an ongoing supply issue with the following two products:
  + Metoprolol 50mg tablets
  + Metoprolol 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 a number of months.
* If patients are having difficulty obtaining metoprolol, they may need to be switched to an appropriate alternative treatment.
* Please see a memo with had been developed by UK Medicine Information with input from national experts at NHSE and NHSI, 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.
* This is available on the SPS website at the following link: <https://www.sps.nhs.uk/articles/shoratge-of-metoprolol-50mg-and-100mg-tablets/>
* Suppliers of alternative beta blockers have been contacted to determine if they can meet any additional demand and currently, 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.
* DHSC are continuing to work with the manufacturers Milpharm/Aurobindo, to expedite future deliveries will continue to monitor the overall situation.

### Bumetanide

* Mylan, the sole supplier of bumetanide 5mg tablets, have informed us they are not currently manufacturing stock of this strength.
* They are not able to provide a date for when this product will be made available.
* Supplies of the 1mg remain available with further deliveries expected w/c 11th March.
* There is a bumetanide 1mg/5ml liquid available from Chemidex however there is insufficient stock to cover an uplift in demand.

### Tizanidine

* There is a short-term supply issue affecting tizandine 2mg and 4mg tablets.
* TEVA and Niche, the main suppliers of tizanidine, are currently out of stock of both strengths
* A small amount remains in the wholesalers
* Teva have confirmed further supplies will be available from w/c 11th March.

### Sandimmun (ciclosporin)

* Novartis have notified us of a supply issues affecting Sandimmun (ciclosporin) capsules due to a manufacturing site transfer.
* Sandimmun 50mg and 100mg are currently out of stock, resupply is expected early May 2019
* Limited supplies of the Sandimmun 25mg are available but supplies likely to be depleted by mid-late March 2019.
* Novartis have sourced supply of all strengths from their Italian market to meet the gap during this period.
* The unlicensed Italian stock will be made available from w/c 11th March from their distributor, Clinigen.
* Pharmacies can order stock through Clinigen who can be contacted at: Churchfield road, Weybridge, KT13 8DB, Tel: 01932 824 100, Fax: 01932 824 300

E-mail - [ukcustomerservice@clinigengroup.com](mailto:ukcustomerservice@clinigengroup.com)

* Novartis have issued the following attached letter to customers



### Sevelamer tablets

* DHSC are currently aware of a short term supply issue affecting Sevelamer carbonate 800mg tablets
* This is due to two suppliers discontinuing their product from the UK market resulting in an increase in demand on other supplier’s products.
* Supplies of Sevelamer Carbonate 800mg tablets are currently limited.
* However, further deliveries from Sanofi (Renvela brand) and Creo (generic) are expected w/c 4th and 11th March 2019.
* We are working closely with all suppliers to expedite future deliveries.
* Sevelamer Hydrochloride 800mg tablets (Renegal brand) remain available however there is insufficient stock to cover an uplift in demand.

### Metopirone

* 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
* Patients experiencing difficulty in obtaining supplies of this product should be referred to their specialist prescriber who will be able to advise on alternative treatment options during this time

Vaccines

### 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 at the following link: <https://travelhealthpro.org.uk/news/389/rabies-vaccine-availability>

Others

Gastrografin

* DHSC have been informed by Bayer of a supply issue affecting Gastrografin Gastroenteral Solution due to manufacturing constraints.
* Deliveries until July 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.
* We have informed the unlicensed specials importers, who have been able to source products
* Further information will be shared with your regional procurement specialist.

# Ongoing Issues

Injectables

### Bleomycin injection

* Kyowa Kirin, the sole supplier of bleomycin injection is out of stock with resupply expected 29th March 2019.
* Unlicensed specials importers can access supplies in line with usual demand.
* Further information has been circulated to your regional procurement specialists.

### Epanutin (phenytoin sodium) Ready Mixed Parenteral 250mg/5ml

* Pfizer are out of stock of this product until May 2019.
* Pfizer continue to have supplies of Phenytoin Hospira Injection BP.
* A number of other generic presentations of Phenytoin IV also remain available.
* It is advised that clinical teams refer to local IV monographs when switching to other Phenytoin IV products.

### Clexane 40mg injection

***Further Clexane supplies are now available and so alternative products should not be required, however, we have provided the information below as supplies of these products may still be being issued***

* **Clexane (Sanofi) Imported stock**
  + Sanofi have imported Clexane 40mg stock from Italy to help cover the recent shortfall in UK stock. This product is imported under a batch specific variation to the UK and is therefore classed as licensed in the UK.
  + This product is currently available to order via the usual routes.
  + The most important difference between the Italian and UK preparations is the difference in the needle guard device. To deploy the Preventis needle shield on the Italian syringes, users will need to firmly push the plunger after completing the injection. The user will hear an audible “click” to confirm the activation of the protective sleeve and the protective sleeve will automatically cover the needle.
  + Patients and HCPs will need to be trained on this new device; instructions for use can also be found within the PIL. This product will NOT be over-labelled in English but an English PIL will be included in the pack.
  + Sanofi have provided information on the differences in these products and these materials can be found at the following link: <https://www.medicines.org.uk/emc/product/4499/rmms>
  + Please note - UK Clexane is in stock and Sanofi are transitioning to new packaging in early March – see attached communication below.



Erwinase

* 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 are currently in stock.
* 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.

### EpiPen and EpiPen Junior

The supply situation for EpiPen and EpiPen Juniors continues to improve and further stock is due in the coming months, the latest position for adrenaline auto-injectors is as follows:

0.3mg Adrenaline Auto-injectors:

* EpiPen 0.3mg is currently available from wholesalers.
* Supplies of Emerade and Jext are also available, and further deliveries are scheduled for March.
* Emerade also supply a 0.5mg adrenaline auto-injector which is currently available.

0.15mg Adrenaline Auto-injectors:

* Stock of EpiPen Junior is now available via a prescription validation process. Pharmacies are allocated stock on a prescription-only basis and can place orders for up to a maximum of two EpiPen Junior 0.15mg auto-injectors per prescription. Information about this process is available on the EpiPen website under the ‘Instruction to Pharmacists’ section: <http://www.epipen.co.uk/>
* Supplies of both Jext and Emerade 0.15mg adrenaline auto-injectors are currently available and stock of these adrenaline auto-injectors can be obtained from wholesalers. Jext and Emerade are no longer subject to wholesaler prescription validation. Wholesalers have placed caps on orders but these are in line with caps in place prior to the prescription management protocol, please contact wholesalers for further information.
* Pharmacies are urged not to over order during this time to avoid future supply problems and stocks are being monitored closely.
* The supply situation for EpiPen Juniors continues to improve and further stock is due in the coming months.

### Imigran (sumatriptan) injection

* Due to a manufacturing issue supplies of GSK’s branded sumatriptan injection are experiencing supply issue.
* GSK have confirmed the treatment pack is available, however supplies of the refill packs are not expected until July 2019.
* Generic supplies of sumatriptan injection in both initiation and refill packs are available from Sun Pharma/Ranbaxy – (this product is ‘sumatriptan 6 mg/0.5 ml solution for injection’)
* Sun Pharma/Ranbaxy have confirmed that they are able to support the additional demand during this time.

### Ondansetron 4mg and 8mg injection

* Non-contracted regions may be unable to obtain licensed supplies of ondansetron 4mg injection and Mylan who supply the 8mg injection are experiencing supply issues.
* Separate communications have been sent to the affected region.

### Gadovist preparations

* We have been informed by Bayer that ongoing manufacturing issue at their site in Berlin is affecting supplies of their Gadovist presentations. This issue is likely to go on for a number of 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 sufficient stock to support this supply issue
* Please see full summary/stock potion in table below.

|  |  |  |
| --- | --- | --- |
| **Manufacturer** | **Presentation** | **Stock Availability** |
| Bayer Plc | Gadovist 1mmol/ml solution for injection 10ml pre-filled syringes | Currently **in stock**. The scheduled delivery arrived at the end of December 2018, as planned, but stock levels were sufficient to cover back-orders only, such that the stock-out period will extend through until approx. the end of February 2019 when the next delivery is planned. Do not currently expect any further stock-outs after that delivery; however, restricted supply could continue until the end of Q2 2019 due to production issues. |
| Bayer Plc | Gadovist 1mmol/ml solution for injection 15ml vials | Currently **in-stock**. The stock delivery scheduled for January 2019 arrived with sufficient stock to cover back-orders and to provide a re-stock until the next delivery scheduled for mid-March 2019. Do not currently foresee another stock-out risk for this pack; however, restricted supply could continue until the end of Q2 2019 due to production issues. |
| Bayer Plc | Gadovist 1mmol/ml solution for injection 5ml pre-filled syringes | Currently **out of stock**. The scheduled delivery arrived in December 2018, as planned, but covered back-orders only (as anticipated), such that the stock-out period will extend through until early March 2019 when the next delivery is planned. Do not currently expect any further stock-outs after that delivery; however, restricted supply could continue until the end of Q2 2019 due to production issues. |
| Bayer Plc | Gadovist 1mmol/ml solution for injection 7.5ml pre-filled syringes | Currently **in-stock**, with stock levels expected to last until the next delivery that is scheduled to arrive in March 2019. Do not currently foresee another stock-out risk for this pack; however, restricted supply could continue until the end of Q2 2019 due to production issues. |
| Bayer Plc | Magnevist 2mmol/l solution for injection  1 x 20 ml pre-filled syringe | Currently **out of stock.** Next delivery is due in May. 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 Q3 2019. |
| Guerbet UK | Dotarem 10ml vial  Dotarem 10ml PFS  Dotarem 15ml vial  Dotarem 15ml PFS  Dotarem 20ml vial  Dotarem 20ml PFS  Dotarem 5ml vial | All presentations in stock and Guerbet have sufficient stock to support the shortage |
| Bracco UK Ltd | ProHance 0.5mmol/ml solution for injection 10ml pre-filled syringes  ProHance 0.5mmol/ml solution for injection 10ml vials  ProHance 0.5mmol/ml solution for injection 15ml vials  ProHance 0.5mmol/ml solution for injection 17ml pre-filled syringes  ProHance 0.5mmol/ml solution for injection 20ml vials | All presentations in stock and Bracco have sufficient stock to support the shortage |

### Ribavirin injection (unlicensed)

* Mylan have informed us that they are out of stock of Virazole injection (unlicensed) due to a manufacturing issue.
* Mylan are currently unable to advise on a resupply date.
* Unlicensed imports continue to remain available, lead times may vary.

### Flecainide injection

* Teva are the sole licensed UK supplier and have been long term out of stock with no resupply date.
* Unlicensed imports continue to remain available, lead times may vary.

Fludarabine injection

* Teva have reported a supply issue with fludarabine injection and expect to be out of stock for 3 weeks from w/c 11/3/19 until the next delivery at the end of March.
* Current updates from Accord:
  + Actavis product, the solution for injection, is currently available.
  + Accord are out of stock of the powder presentation and are not able to provide a date for when this product will be available.
* Sanofi are out of stock of the powder presentation (Fludara) with the next delivery due mid-March and expected in wholesaler's w/c 25/3/19

### Doxorubicin powder for injection

* Medac have now discontinued supply of doxorubicin powder for injection and they have exhausted all stock – letter for further information is below.
* Doxorubicin solution for injection remains available from several suppliers.
* We are aware that there are specialist indications which are prepared via PMUs that require the powder presentation specifically as a very concentrated solution is required (e.g TACE drug-eluting beads). Discussions are ongoing with clinical / technical colleagues to determine if there is an alternative technical method using the solution for injection which can be put in place.
* Merit are able to provide information about HepaSphere microspheres for TACE.
* Unlicensed imports continue to remain available, lead times may vary and quantities available are limited.

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Orals

### 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 (the manufacturers of Carbogen) have informed DHSC that the following preparations of Carbagen (carbamazepine) tablet will be unavailable until mid-late 2019.
* The affected products are listed below:
  + 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 which is the alternative brand of carbamazepine, tablets have confirmed 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 during this period. The memo can be found at the following link: <https://www.sps.nhs.uk/articles/shortage-of-carbagen-carbamazepine-tablets/>
* Clinicians and pharmacists should identify potentially affected patients as soon as possible and ensure they are managed appropriately.

*\*There are clear indications that clinically relevant differences between different manufacturers’ products might occur, even when the pharmaceutical forms are the same and bioequivalence has been shown.*

### Lofepramine 70mg tablets

* DHSC were made aware of a slight interruption of supply to lofepramine 70mg tablets at the beginning of January.
* Creo Pharma have confirmed that stock is available to all wholesalers to meet demand.
* Creo Pharma have informed DHSC they are expecting a further delivery in March.
* Accord are expecting new stock to become available week ending 15th March 2019.

### Madopar (co-beneldopa)

* Roche, the manufacturer of Madopar (co-beneldopa), are currently experiencing supply difficulties with some of the Madopar range. This is due to an unforeseen increase in demand on their Madopar products throughout 2018.
* Supplies of some Madopar presentations, may be constrained during January. The situation is expected to improve in February.
* **Madopar 125mg Hard Capsules –** In stock.
* **Madopar 62.5mg Dispersible Tablets –** stock should be available in wholesaler’s week ending 1st March 2019.
* **Madopar 125mg Dispersible Tablets –** In stock
* **Madopar 125mg Controlled Release Capsules –** In stock
* **Madopar 25/250mg capsules** - Limited stock and more stock is arriving early March.
* Other Madopar presentations remain unaffected at this time
* If patients are having difficulties obtaining supplies of Madopar we would recommend they see a clinician to discuss alternative treatment options.
* Please be assured that we are continuing to work closely with the manufacturer and others to try to resolve these issues and improve the situation as quickly as possible.

### Sinemet (co-careldopa) tablets

* Ongoing issues with the supply of Sinemet from MSD- please see attached company letter
* The latest update we have on the current supply position is:
  + **Sinemet 12.5mg/50mg** - Stock is currently available and further stocks are expected over the coming weeks.
  + **Sinemet Plus 25mg/100mg** – Stock is currently available and further stocks are expected over the coming weeks.
  + **Sinemet 25mg/250mg -** Stock is currently available.
* DHSC has been working with generic suppliers on this issue and can confirm generic co-careldopa supplies in all the above strengths will be available to support the intermittent supply constraints.
* DHSC are continuing to work with MSD and generic manufacturers to manage the overall supply position over the coming months and will provide an update when more information is available.
* MSD have provided information to Parkinson’s UK which can accessed on their website via the following link: <https://www.parkinsons.org.uk/news/manufacturing-capacity-causes-shortage-sinemet>



Clomipramine

* We are aware of a current supply issue affecting the 10mg and 25mg presentations. Teva and Mylan are experiencing manufacturing issues and as a result, have recently been out of stock.
* Teva have confirmed they are now back in stock of clomipramine 25mg capsules,
* Clomipramine 10mg capsules Both Mylan and Teva are expecting supplies of clomipramine 10mg capsules by the end of March.
* Clomipramine 50mg capsules, from Teva, remain available.

### Adalat (nifedipine)

* Letter from Bayer attached below
* There continues to be a temporary interruption to the supply of some Adalat presentations, with Bayer UK intending to re-supply the market at a later date than previously advised.
* There will be some out of stock periods for some preparations and long-term discontinuations of the following products:
  + Adalat 5mg capsules – discontinued from February 2019. Bayer were the sole licensed UK supplier of this product. We have been working with potential alternative manufacturers and are working to get another licensed supply to the UK market. We have had a positive response and it is currently estimated that supplies could be available April – May 2019. We have also been in contact with the specialist importers and can confirm that unlicensed supplies have been sourced.
  + Adalat 10mg capsules – discontinued by March 2019
  + Adalat Retard 10mg modified release tablets – discontinued November 2018
  + Adalat Retard 20mg modified release tablets – discontinued August 2018
  + Adalat LA 20mg, 30mg and 60mg prolonged release – out of stock until 2021.
* The below letter also lists the other preparations of Adalat (nifedipine) that remain available to order as well as contact details for healthcare professionals to obtain further advice and support.
* Supplies of other nifedipine capsules and tablets remain available currently, including;
  + Adipine (Chiesi)
  + Coracten (UCB)
  + Nifedipress (Dexcel)
  + Tensipine (Genus)
* We are in contact with the suppliers of all of the above alternatives and they are working to ensure that supplies remain available and to expedite future deliveries where possible.
* UKMI have issued a shortages memo, which provides advice on alternatives, this is available on the SPS website via the following link: <https://www.sps.nhs.uk/articles/shortage-of-adalat-nifedipine/>
* Please do pass on information about this shortage to relevant clinical specialities.

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### Lofexidine tablets

* Britannia are no longer supplying Britlofex (lofexidine) tablets due to manufacturing problems.
* Britannia is the sole supplier of this product to the UK.
* 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 the specialist importer companies about this and they have been unable to source supplies from abroad, as this product is not used in many other countries.
* 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/>

### Stemetil (prochloperazine) 5mg in 5ml oral syrup

* Sanofi are out of stock of Stemetil oral syrup,
* Next delivery due middle of 2019 (date tbc).
* Other presentations of Prochloperazine which will continue to remain available 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, this has now been published on the SPS website:
* <https://www.sps.nhs.uk/articles/shortage-of-stemetil-prochlorperazine-5mg-5ml-syrup/>

Menadiol tablets

* Alliance, the sole supplier, are currently unable to provide a re-supply date for the licensed product.
* They are now supplying an unlicensed special which is the same formulation as the licensed product. This product is available to order from Alcura.
* Other specialist importers are also able to source unlicensed supplies.
* UKMI have drafted a shortages memo, which will provide advice on alternatives, this is available on the SPS website:

<https://www.sps.nhs.uk/articles/shortage-of-menadiol-diphosphate-tablets-10mg/>

* Please do pass on information about this shortage to relevant clinical specialities including paediatrics.

### Trifluoperazine tablets

* There have been ongoing manufacturing issues with the active ingredient affecting trifluoperazine 1mg and 5mg tablets.
* As a result, there are long term issues affecting the tablets. There are currently no dates for resupply.
* Concordia and Rosemont have trifluoperazine as a liquid formulations and good supplies are available.
* We are also aware that unlicensed supplies of the 1mg and 5mg tablet are available from both Ennogen and a number of specialist importer companies. Under the medicines legislation, doctors can prescribe unlicensed products for their patients if they think it appropriate, but do so entirely on their own responsibility.
* Pharmacies can obtain unlicensed supplies via these specialist companies or Ennogen.

### Zaditen (ketotifen) 300ml (1.38mg in 5 ml oral solution)

* 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, so it 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.



### Hydroxycarbamide 100mg and 1000mg tablets

* Nordic Pharma are no longer distributing this product on behalf of the manufacturer.
* Nordic Pharma have contacted all hospitals who have purchased this product in the last year to inform them of this.
* Currently, there are no alternative arrangements for distribution of this product
* Medac have hydroxycarbamide 500mg capsules supplies available and are on contract for the NHS.

Others

Prednisolone 20mg/100ml rectal solution **– stock now available**

* Generic replacement for Predsol 20mg/100ml retention enemas

## Eye drops/treatments

**Bausch & Lomb**

* Viscotears - There is a short-term back order of viscotears but this is expected to be cleared shortly.

**Allergan**

* Lacri-Lube **supplies-** out of stock due to a manufacturing issue.
* 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 (marketing authorisation holder) who distribute the product through Focus Pharmaceuticals have advised about the discontinuation of Betnesol Eye Ointment 0.1% w/w x 3g towards the end of March
* RPH Pharmaceuticals will be launching a generic Betamethasone Eye Ointment 0.1% w/w x 3g and are currently expecting stock in 2019.

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#2018>

### Hepatitis B Vaccines

Renal dose

* Hepatitis B renal vaccines (MSD’s HBVAXPRO 40mcg and GSK’s Fendrix) are temporarily out of stock.
* GSK are expecting resupply of Fendrix in March 2019
* MSD are out of stock of HBVAXPRO 40mcg until further notice. Please see statement: <http://www.msd-uk.com/products/vaccines.xhtml>
* PHE have advised that standard adult dose vaccine can be used if vaccination cannot be safely deferred. Renal dialysis patients should be routinely tested for hepatitis B immunity post vaccination as per national guidelines.
* Please refer to PHE’s Vaccine Update bulletin for further information

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.

Pneumococcal Polysaccharide Vaccine **(PPV23):**

* MSD are the sole UK supplier of this vaccine and although still under restriction, supplies have improved.
* MSD has introduced a limited quantity of a prefilled syringe presentation (PFS) 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. Customers need an AAH account to place an order.
* For more information about the vaccine, please refer to the Summary of Product Characteristics (SmPC).
* PHE’s guidance to GPs and recommendations published in February edition of PHE’s Vaccine Update Bulletin (Page 7) on how to manage patients if unable to obtain PPV vaccine continue to apply.



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

* GSK are out of stock of Menveo until late March 2019
* Pfizer have confirmed they are in stock of Nimenrix and currently able to support increased demand.

Discontinuations

Zovirax (acyclovir) eye ointment **(GSK)**

* Being discontinued globally in June 2019 due to repeated challenges in guaranteeing a sustainable product supply.  There are no other acyclovir eye ointments on the market but an alternative licensed product Virgan (ganciclovir) is available. This is the link to the webpage with further information: <https://gskpro.com/en-gb/products/zovirax/>
* UKMi have produced a memo giving advice on possible alternative treatments, the memo can be found on the following link: <https://www.sps.nhs.uk/articles/shortage-of-aciclovir/>
* Thea Pharmaceuticals are aware of this discontinuation and have confirmed they can meet demand for Zovirax eye ointment with their Virgan (ganciclovir) eye gel.

Cilest **(norgestimate and ethinylestradiol) tablets (Janssen- Cilag) -**

* Being discontinued from the UK market in July 2019 due to commercial reasons.  Alternate branded norgestimate and ethinylestradiol products – Cilique and Lizinna - remain available from other suppliers.  The company is advising HCP’s not to start any new patients on Cilest and to transfer patients over to alternate oral contraceptives. Company letter attached below.



Augmentin Duo **(amoxicillin/ clavulanate acid) (GSK) - Flavour change**

* Following a global factory realignment, both the 35ml and 70ml presentations of Augmentin DUO 400mg/57 mg/5ml powder for oral suspension **Strawberry flavour** are to be replaced by a **Mixed Fruit flavour** of the same strength.

Synflorix **(pneumococcal vaccine) (GSK)**

* Synflorix suspension for injection in pre-filled syringe is being discontinued with immediate effect due to very low sales.

Hypurin Bovine insulin **(Wockhardt): Update**

* 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>

### Reopro (Abciximab) injection

* Following a long-term shortage with Reopro (abciximab) Janssen-Cilag have been unable to overcome production issues to bring the product back to market and have taken the decision to discontinue it.  We have contacted suppliers of the alternatives.
* UKMi have produced the following memo during the shortage period which provides advice on possible alternative treatments, the memo can be found on the following link: <https://www.sps.nhs.uk/articles/shortage-of-abciximab-reopro-2mgml-solution-for-injection-or-infusion/>

Resolved

### Tetracosactide 250mcg injection

### Isoniazid 100mg tablets

### Nimodipine 30mg tablets

### Pivmecillinam 200mg tablets

### Alfacalcidol (one alpha) 1mcg and 2mcg injections

### Phenobarbital Injection

### Baxter Sodium Chloride 0.9%, Hartmann’s and Plasmalyte

### Isoflurane

### Naproxen tablets

### Metronidazole tablets

### Metroidazole suppositories

### Sinthrome (acenocoumarol) tablets

### Tambocor (flecainide) modified release tablets

### Caffeine 10mg/mL injection

### Dalteparin injection

### Pethidine injection

### Diamorphine Injection (Wockhardt)