

<p>SHORTAGE: Acarbose 100mg tablets</p>	<p>Anticipated re-supply date 3 March 2023</p> <p>Actions Where patients have insufficient supplies to last until the re-supply date, prescribers should:</p> <ul style="list-style-type: none"> • review patients to determine if this is still the most suitable therapy • consider prescribing alternative medicines licensed for the treatment of type 2 diabetes as recommended by local or NICE guidance that is appropriate for the patient, ensuring they are counselled on the new treatment and monitored as recommended in guidelines • if the above options are not considered appropriate, or acarbose is being used off-label for dumping syndrome, advice should be sought from specialists on management options. <p>Alternatives Other medicines licensed for the treatment of type 2 diabetes remain available. Specialist advice required if acarbose is being used off-label for dumping syndrome.</p> <p>Medicine Supply Notification Number MSN/2022/099</p> <p>Links</p> <ul style="list-style-type: none"> • Acarbose BNF • Acarbose SmPC • NICE guidance: Type 2 diabetes • International consensus on the diagnosis and management of dumping syndrome
<p>DISCONTINUATION: Fluoxetine 10mg tablets</p>	<p>Date stock to be exhausted: 19 December 2022</p> <p>Actions Fluoxetine 10mg tablets are now discontinued therefore prescribers are advised to consider prescribing an alternative preparation of fluoxetine.</p> <p>Community pharmacists may supply fluoxetine 10mg capsules against the Serious Shortage Protocol for eligible patients until 31st March 2023.</p> <p>Availability of alternatives Fluoxetine 10mg capsules remain available. There is currently a Shortage of Fluoxetine 20mg/5mL oral solution and fluoxetine (Olena) 20mg dispersible tablets Patient reassurance may be needed due to differences in packaging of each formulation.</p> <p>Bioavailability unaffected Fluoxetine 20mg/5ml oral solution has the same bioavailability as tablets and capsules. Equivalent doses are therefore as follows:</p> <p>10mg capsules or tablets For 10mg capsules or tablets, use 2.5 mL of oral solution</p> <p>30mg capsules or tablets For 30mg capsules or tablets, use 7.5 ml of oral solution</p> <p>40mg capsules or tablets For 40mg capsules or tablets, use 10 ml of oral solution</p>
<p>SHORTAGE:</p>	<p>Anticipated re-supply date 7 April 2023</p>

<p>Midazolam 2mg/2ml solution for injection ampoules</p>	<p>Actions NHS provider trust pharmacy procurement teams and their local Medication Safety Officer should work with the appropriate clinical leads (including the anaesthetic lead for sedation) to;</p> <ul style="list-style-type: none"> • identify the clinical areas using midazolam 2mg/2ml ampoules • review local stockholding of the 2mg/2ml ampoules and where appropriate ringfence any remaining stock for use in specific areas following a risk assessment • consider use of midazolam 5mg/5ml ampoules to support the affected clinical areas ensuring the risk of confusion between the 2ml and 5ml ampoules, and that only part of the ampoule may be needed if using 5ml ampoules has been considered and highlighted • ensure flumazenil continues to be available in all areas that stock midazolam • ensure that all healthcare practitioners involved directly or participating in sedation techniques are made aware of supply issue and provided with appropriate education and training; and • review and update local guidelines to reflect any changes to practice <p>Alternatives Midazolam 5mg/5ml solution for injection ampoules remain available and can support a full uplift in demand.</p> <p>Medicines Supply Notification Number MSN/2023/018</p> <p>Links</p> <ul style="list-style-type: none"> • BNF - Midazolam • SmPC - Midazolam • BNF - Flumazenil • SmPC - Flumazenil
<p>SHORTAGE: Lamotrigine 5mg dispersible tablets sugar free (Teva UK Ltd)</p>	<p>Anticipated re-supply date 31 March 2023</p> <p>Actions For primary care Where patients have insufficient supplies to last until the re-supply date, clinicians should:</p> <ul style="list-style-type: none"> • review patients to ascertain who should be prioritised for any remaining stock of lamotrigine 5mg dispersible tablets, including those who have an intolerance to excipients in the suspension, or who would have difficulty measuring out a dose of the suspension • consider prescribing unlicensed lamotrigine 25mg/5ml oral suspension available from Specials manufacturers (see clinical information) • if the above mentioned options are not appropriate, consider prescribing unlicensed lamotrigine 5mg dispersible tablets. Prescribers should work with local pharmacy teams to ensure orders are placed within appropriate time frames as lead times may vary (see clinical information) • reassure patients that whatever they are switched to, they are receiving the same drug at the same dose, and to report any side effects or loss of seizure control, after the switch; and • if none of above are considered appropriate, advice should be sought from specialists on management options. <p>For secondary care</p> <ul style="list-style-type: none"> • where there is insufficient stock, liaise with pharmacy to request mutual aid, facilitated by their Regional Pharmacy Procurement Specialist

	<p>Alternatives Branded lamotrigine (Lamictal) 2mg and 5mg dispersible remain available but are unable to support the increase in demand.</p> <p>Specials The following Specials manufacturers have currently confirmed they can manufacturer lamotrigine 25mg/5ml oral suspension (please note, there may be other companies that can also manufacture):</p> <ul style="list-style-type: none"> • Lexon • Nova Labs • PCCA • Quantum • Rokshaw <p>Unlicensed imports The following specialist importers have confirmed they can source unlicensed lamotrigine 5mg dispersible/chewable tablets (please note there may be other companies that can also source supplies):</p> <ul style="list-style-type: none"> • Mawdsleys • Target Healthcare <p>Medicine Supply Notification Number MSN/2023/017</p> <p>Links</p> <ul style="list-style-type: none"> • BNFc - lamotrigine • SmPC - lamotrigine 5mg dispersible tablets
<p>SHORTAGE: Hydrocortisone 2.5mg muco-adhesive buccal tablets sugar free (Accord Healthcare Ltd) 20 tablet</p>	<p>Anticipated re-supply date 11 October 2023</p> <p>Actions Clinicians considering treatment for patients presenting with oral ulcers should:</p> <ul style="list-style-type: none"> • assess the severity of the patient’s ulcers including frequency and interference with daily activities; • if treatment is required, establish whether over-the-counter products (purchased or prescribed) have already been tried, and whether it is appropriate to use/retry; • if above mentioned treatments are not suitable, consider prescribing betamethasone soluble tablets for off-label topical use as a mouthwash, counselling patients on how to administer treatment, and stressing that the mouthwash must <i>not</i> be swallowed; • if neither of the above options are appropriate, prescribers should seek specialist advice from the oral medicine clinic. <p>Alternatives see Supporting Information</p> <p>Medicines Supply Notification Number: MSN/2022/054</p> <p>Links</p> <ul style="list-style-type: none"> • Hydrocortisone 2.5 mg Muco-Adhesive Buccal Tablets • BNF: Treatment summary - Oral ulceration and inflammation • NICE CKS - Scenario: Management of aphthous ulcer

	<ul style="list-style-type: none"> • SPS: Understanding safety risks with betamethasone soluble tablets used as mouthwash • PIL: Betamethasone 500 microgram soluble tablets used as a mouthwash
<p>SHORTAGE: Hyoscine hydrobromide (Kwells Kids) 150micrograms and (Kwells) 300micrograms tablets</p>	<p>Anticipated re-supply date 17 February 2023</p> <p>Actions</p> <p>For prescribers</p> <p>Where patients have insufficient supplies to last until the re-supply date, clinicians/prescribers should:</p> <ul style="list-style-type: none"> • defer initiating patients on Kwells Kids or Kwells until the shortage has resolved • refer to local guidelines/formulary for selection of an alternative formulation of hyoscine hydrobromide or another anti-muscarinic agent for the management of hypersalivation, ensuring no intolerance excipients, and the patient is counselled on dose and administration (see alternatives) • if the above options for hypersalivation are not considered appropriate, advice should be sought from specialists on management options. <p>For community pharmacists</p> <ul style="list-style-type: none"> • Pharmacists selling OTC medicines should recommend an alternative anti-emetic for travel sickness. <p>Alternatives</p> <p>Management of hypersalivation</p> <p>The following alternative products remain available for this indication.</p> <p>Glycopyrronium bromide</p> <p>Glycopyrronium bromide products are licensed for the symptomatic treatment of severe sialorrhoea (chronic pathological drooling) in children and adolescents aged 3 years and older with chronic neurological disorders. Use in adults is off-label. Available presentations are:</p> <ul style="list-style-type: none"> • Glycopyrronium bromide 1mg tablets • Glycopyrronium bromide 2mg tablets <p>Hyoscine hydrobromide patches</p> <p>Available as Scopoderm Patches (hyoscine hydrobromide 1.5mg) and their use for this indication is off-label.</p> <p>For the prevention of travel (motion) sickness</p> <p>NHSE guidance recommends that a prescription for the treatment of motion sickness will not routinely be offered in primary care as the condition is appropriate for self-care, further information is available from the NHS website. Alternative treatment options available OTC include:</p> <ul style="list-style-type: none"> • Promethazine teoclate 25mg tablets • Promethazine hydrochloride 10mg and 25mg tablets • Promethazine hydrochloride 5mg/5ml oral solution • Cinnarizine 15mg tablets • Scopoderm (hyoscine hydrobromide) 1.5mg patches <p>Medicine Supply Notification Number MSN/2023/011</p> <p>Links</p> <ul style="list-style-type: none"> • Non-pharmacological options for the management of motion sickness • NICE CKS - hypersalivation • BNF - Nausea and labyrinth disorders • BNFC - Nausea and labyrinth disorders • BNF - Promethazine teoclate • SmPC - Promethazine teoclate • SmPC - Cinnarizine

	<ul style="list-style-type: none"> • SmPC - Hyoscine hydrobromide (Scopoderm) • SmPC - Glycopyrronium bromide • SmPC - Promethazine hydrochloride
<p>SHORTAGE: Sodium calcium edetate 500mg/10ml solution for injection ampoules</p>	<p>Anticipated re-supply date 31 March 2023</p> <p>Actions Actions for pharmacy teams and Medication Safety Officers Mawdsley's have sourced an alternative unlicensed product from Italy, but this is a higher strength preparation of sodium calcium edetate (1000mg/10ml). (see information below)</p> <ul style="list-style-type: none"> • Trusts are advised to work with their procurement teams and Medication Safety Officers to ensure any existing stock of the 500mg/10ml product is not stored with this higher strength product to reduce risk of dosing errors and protocols/guidelines amended to reflect use of this higher strength product. <p>Alternatives Higher strength alternative: 1000mg/10ml Sodium calcium edetate (1000mg/10ml) is available. Note that:</p> <ul style="list-style-type: none"> • The product information has been translated into English and Clinical Specialists consider this an appropriate replacement, albeit at a higher strength. • The prescribing information in the SPC for this unlicensed product may not reflect UK practice. • Toxbase and Medusa monographs have been amended to highlight availability of the higher strength product.
<p>SHORTAGE: Dinoprostone (Prostin E2 vaginal tablets) 3mg pessaries</p>	<p>Anticipated re-supply date 17 March 2023</p> <p>Actions NHS Provider Trust pharmacy procurement teams should work with clinical teams (obstetrics and midwifery teams) who use dinoprostone (Prostin E2) 3mg pessaries to:</p> <ul style="list-style-type: none"> • review local protocols and guidance and consider prescribing an alternative dinoprostone preparation, such as Prostin E2 1mg or 2mg vaginal gel, or Propess 10mg vaginal delivery system (see considerations and background); and • if the above mentioned alternatives are not suitable, local or NICE guideline [NG207] – Inducing labour; can be consulted for alternative classes of therapy <p>Alternatives Alternative dinoprostone products, Prostin E2 1mg and 2mg vaginal gel and Propess 10mg vaginal delivery system, are available and can support an uplift in demand. Alternative classes of treatment remain available as per NICE guideline [NG207] – Inducing labour.</p> <p>Medicine Supply Notification Number MSN/2023/013</p> <p>Links</p> <ul style="list-style-type: none"> • NICE Guideline [NG207] – Inducing Labour • BNF – dinoprostone • SmPC – dinoprostone
<p>SHORTAGE:</p>	<p>Anticipated re-supply date 10 March 2023</p>

<p>Aprotinin 10,000 KIU/ml Injection BP</p>	<p>Actions NHS Provider Trust pharmacy procurement teams should work with clinical teams (specifically cardiac surgery) who use aprotinin 10,000 KIU/ml injection BP to:</p> <ul style="list-style-type: none"> • centralise stock in pharmacy where appropriate to do so • review surgical lists to ascertain which patients should be prioritised for aprotinin if available, including those for whom tranexamic acid is not considered suitable; • where there is insufficient stock, liaise with pharmacy to request mutual aid, facilitated by their Regional Pharmacy Procurement Specialist; and • where aprotinin is unavailable, consider prescribing tranexamic acid 100mg/ml injections (5ml or 10ml ampoules), which is able to support the market during this time, ensuring that there are no contra-indications to its use (see clinical information below). <p>Alternatives Tranexamic acid 100mg/ml solution for injection (5ml or 10ml ampoules) remains available and will be able to support increased demand.</p> <p>Medicine Supply Notification MSN/2023/014</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC aprotinin 10,000 KIU/ml injection • BNF tranexamic acid • SmPC tranexamic acid 100mg/ml solution for injection
<p>SHORTAGE: Imiquimod (Aldara 5% and Bascellex 50mg/g) cream</p>	<p>Anticipated re-supply date Aldara 5% cream 250mg sachets (Viatris UK Healthcare Ltd) 24 March 2023</p> <p>Bascellex 50mg/g cream 250mg sachets (Sun Pharmaceutical Industries Europe B.V.) 10 March 2023</p> <p>Actions NHS Provider Trust Pharmacy Procurement teams should:</p> <ul style="list-style-type: none"> • review local stock holding of Aldara 5% cream or Bascellex 50 mg/g cream, including stock being held at ward locations • estimate if they hold sufficient stock to meet the anticipated demand until the re-supply date; and • where there are insufficient stocks, the organisation should request mutual aid, facilitated by their Regional Pharmacy Procurement Specialist <p>Where patients have insufficient supplies to last until the re-supply date, clinicians/prescribers should:</p> <ul style="list-style-type: none"> • defer initiating new patients on Aldara 5% cream or Bascellex 50 mg/g cream until the shortage has resolved and consider prescribing an alternative product, with reference to the licensed indication, ensuring that the patient is not intolerant to any of the excipients and is counselled on dosing and administration (see Clinical Information and Alternatives) • consider prescribing unlicensed products only where licensed alternatives are not appropriate, working with local pharmacy teams to ensure orders are placed within appropriate time frames as lead times may vary (see information below); and • if the above options are not considered appropriate, advice should be sought from specialists on management options <p>Alternatives The following alternative presentations remain available. Imiquimod (Zyclara) 3.75% cream will be able to partially support an increased demand.</p>

For actinic (solar) keratosis**Zyclara 3.75% cream* (Imiquimod)**

Indication: Topical treatment of clinically typical, nonhyperkeratotic, nonhypertrophic, visible or palpable actinic keratosis of the full face or balding scalp in immunocompetent adults when other topical treatment options are contraindicated or less appropriate.

*In the USA, imiquimod (Zyclara) 3.75% cream is approved to treat external genital and perianal warts/condyloma acuminata in patients 12 years or older.

Solaraze 3% gel (Diclofenac sodium gel)

Indication: Treatment of actinic keratosis

Efudix 5% cream (Fluorouracil)

Indication – topical treatment of:

- superficial pre-malignant and malignant skin lesions;
- keratoses including senile, actinic and arsenical forms;
- keratoacanthoma;
- Bowen's disease;
- superficial basal-cell carcinoma.
- Fluorouracil produces a more marked inflammatory reaction than diclofenac sodium, but lesions resolve faster

Actikerall 5mg/g + 100mg/g Cutaneous Solution (Fluorouracil with salicylic acid)

Indication: Topical treatment of slightly palpable and/or moderately thick hyperkeratotic actinic keratosis (grade I/II) in immunocompetent adult patients.

Klisyri 10 mg/g ointment (Tirbanibulin)

Indication: Field treatment of non-hyperkeratotic, non-hypertrophic actinic keratosis (Olsen grade 1) of the face or scalp in adults.

This is a new product and is subject to additional monitoring

For superficial basal cell carcinomas**Efudix 5% Cream (Fluoruracil)**

Indication – topical treatment of:

- superficial pre-malignant and malignant skin lesions;
- keratoses including senile, actinic and arsenical forms;
- keratoacanthoma;
- Bowen's disease;
- superficial basal-cell carcinoma.
- Deep, penetrating, or nodular basal cell and squamous cell carcinomas do not usually respond to Efudix therapy. It should be used only as a palliative therapy in such cases where no other form of treatment is possible

For anogenital warts**Condyline 5 mg/ml Cutaneous Solution (Podophyllotoxin)**

Indication: Topical treatment of condylomata acuminata (warts) affecting the penis or the female external genitalia.

Warticon Cream and Solution (Podophyllotoxin)

Indication: Topical treatment of condylomata acuminata affecting the penis or the external female genitalia.

Catephen 10% Ointment

Indication: Cutaneous treatment of external genital and perianal warts (condylomataacuminata) in immunocompetent patients from the age of 18 years

Other therapies

Cryotherapy or other forms of physical ablative therapy (e.g., surgery, laser treatment) may also be considered for anogenital warts, particularly for patients with a small number of low-volume warts, irrespective of type.

Unlicensed Imports

	<p>Where the above licensed alternatives are not suitable, unlicensed supplies may be sourced, lead times vary.</p> <p>Medicine Supply Notification Number MSN/2023/010</p> <p>Links</p> <ul style="list-style-type: none"> • BNF treatment summary - Photodamage • BNF treatment summary - Anogenital warts • BASHH guidelines: anogenital warts • British Association of Dermatologists' guidelines: actinic keratosis • British Association of Dermatologists guidelines: basal cell carcinoma • SmPC Imiquimod preparations • SmPC Solaraze 3% Gel • SmPC Efudix 5% Cream • SmPC Condylone 5 mg/ml Cutaneous Solution • SmPC Warticon Cream and Solution • SmPC Catephan 10% Ointment • SmPC Klisyri 10 mg/g ointment • SmPC Actikerall 5mg/g + 100mg/g Cutaneous Solution
<p>SHORTAGE: Prochlorperazine 12.5mg/1ml solution for injection ampoules</p>	<p>Anticipated re-supply date 17 February 2023</p> <p>Actions NHS Provider Trust Pharmacy Procurement teams should:</p> <ul style="list-style-type: none"> • review local stock holding of prochlorperazine 12.5mg/ml solution for injection ampoules, including stock being held at ward locations; and • estimate if they hold sufficient stock to meet the anticipated demand until the re-supply date <p>Where there are insufficient stocks, the organisation should:</p> <ul style="list-style-type: none"> • request mutual aid, facilitated by their Regional Pharmacy Procurement Specialist; or • take immediate action and work with appropriate clinical leads and the local Medication Safety Officer (MSO) to review the use of prochlorperazine injection and switch to an alternative agent (see Supporting Information) ensuring: • impacted clinical areas are made aware of this shortage and local mitigations; and • prescribing systems, aid memoires or guidance documents are reviewed and updated as required. <p>Refer to BNF and local guidelines for choice of alternative antiemetic treatment options.</p> <p>Alternatives Supporting information Clinical Information Prochlorperazine injection is licenced for the treatment of nausea and vomiting. It is one of several first line treatment options in hyperemesis gravidarum and is used as a rescue anti-emetic in post-operative nausea and vomiting. Refer to BNF and local treatment guidelines for alternative treatment options. Please note in practice, prochlorperazine and alternative treatment options, are also used for off-label indications. Due to ongoing supply issues with ondansetron solution for injection ampoules and droperidol solution for injection ampoules, these cannot support the gap in the market.</p>

	<p>Links</p> <ul style="list-style-type: none"> • BNF: Nausea and labyrinth disorders • SmPC: Prochlorperazine 3mg buccal tablets • SmPC: Cyclizine Lactate 50mg/1ml solution for injection ampoules • SmPC: Metoclopramide 10mg/2ml solution for injection • SmPC: Promethazine 25mg/ml solution for injection
<p>SHORTAGE: Pilocarpine hydrochloride 4% eye drops</p>	<p>Anticipated re-supply date 31 March 2023</p> <p>Actions NHS Provider Trust pharmacy procurement teams, ophthalmology teams and primary care prescribers should:</p> <ul style="list-style-type: none"> • review patients on pilocarpine 4% eye drops for open angle glaucoma or ocular hypertension and establish if they have sufficient supplies until the resupply date. If patients require further supplies: <ul style="list-style-type: none"> ○ consider prescribing pilocarpine 1% or 2% eye drops and adjusting the frequency to control the intraocular pressure; or ○ consider other therapies if appropriate (such as prostaglandins, betablockers, alpha agonists and carbonic anhydrase inhibitors) to control intraocular pressure; • refer to the Royal College of Ophthalmology guidelines on the management of acute angle closure glaucoma and treat all patients (irrespective of eye colour) with a stat dose of pilocarpine 2% eye drops (along with other treatments as laid out in the guideline); • consider prescribing unlicensed (specials) pilocarpine 4% preservative free eye drops if the options above are not suitable (see Supporting Information); and • review patients prescribed pilocarpine 4% eye drops off-label as treatment for dry mouth in palliative care settings and consider prescribing pilocarpine 5mg tablets, which are licensed for xerostomia (see Supporting Information). <p>Alternatives</p> <p>Licensed alternatives Alternative strengths of pilocarpine 1% and 2% eye drops remain available and will be able to support increased demand. For off-label use of the 4% drops in the treatment of xerostomia (dry mouth) in palliative care, pilocarpine 5mg tablets are available and are licensed for this indication.</p> <p>Unlicensed alternatives Specials of pilocarpine 4% preservative free eye drops are available if the licensed alternatives are not suitable.</p> <p>Medicines Supply Notification Number MSN/2022/107</p> <p>Links</p> <ul style="list-style-type: none"> • BNF - Pilocarpine • SmPC – Pilocarpine • Royal College Ophthalmology – The management of acute closure glaucoma (June 2022) • CKS – Glaucoma • The College of Optometrists: Guidance on Primary Angle Closure / Primary Angle Closure Glaucoma (June 2022)
<p>SHORTAGE:</p>	<p>Anticipated re-supply date</p>

<p>Tenecteplase (Metalyse) 10,000 units powder and solvent for solution for injection</p>	<p>17 February 2023</p> <p>Actions</p> <p>Update to communications</p> <p>A National Patient Safety Alert was issued on the 3rd August 2022 regarding the shortage of alteplase and tenecteplase injections, and highlighting restrictions that had been put in place. The supply situation of alteplase has since improved, and this communication now supersedes the management advice previously provided with an update on the restrictions.</p> <p>NHS provider Trust pharmacy procurement teams and their local Medication Safety Officer should:</p> <ul style="list-style-type: none"> • assess stock holding of alteplase and tenecteplase injections to ensure current stock levels are correctly recorded in pharmacy systems; • reduce wastage by selecting appropriate vial sizes and using the most appropriate doses, giving consideration to rounding down to the nearest whole vial; • where a local shortage does exist consider the feasibility of alternative therapeutic options to alteplase and tenecteplase if appropriate; • pharmacy staff should order alteplase injections in line with their allocations and order tenecteplase injection in line with historic order patterns acknowledging that unusual orders will be challenged; and • pharmacy staff should liaise with their Regional Pharmacy Procurement Specialist to manage allocated stocks of alteplase. Ensuring proactive stock management and prompt liaison should stock levels become critically low. <p>Alternatives</p> <p>Streptokinase and urokinase 100,000 units remain available and can support a partial uplift in demand.</p> <p>Medicine Supply Notification Number</p> <p>MSN/2022/084 – this also refers to Shortage of Alteplase (Actilyse) 10mg, 20mg and 50mg powder and solvent for solution for injection and infusion vials.</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC alteplase • SmPC tenecteplase • SmPC streptokinase • SmPC urokinase • NICE guideline for the management of acute ischaemic stroke in adult patients • NICE guidelines for management of acute coronary syndromes • NICE guideline for the diagnosis and management of atrial fibrillation
<p>SHORTAGE: Quetiapine (Sondate XL) modified-release 50mg tablets</p>	<p>Anticipated re-supply date 14 April 2023</p> <p>Actions</p> <p>Where patients have insufficient supplies to last until the re-supply date, prescribers should:</p> <ul style="list-style-type: none"> • consider prescribing an alternative brand of quetiapine modified-release 50mg tablets. <p>Alternatives</p> <p>Alternate brands of quetiapine modified-release 50mg tablets remain available and can support a full uplift in demand.</p> <p>Links</p> <ul style="list-style-type: none"> • BNF Quetiapine

<p>SHORTAGE: Regadenoson (Rapiscan) 400 micrograms in 5ml solution for injection</p>	<p>Anticipated re-supply date 24 February 2023</p> <p>Actions NHS provider Trust pharmacy procurement teams and their local Medication Safety Officer should:</p> <ul style="list-style-type: none"> • Review stock holdings within the organisation, noting the stock exhaustion date of late November 2022; • working with Radiology departments, review protocols that include regadenoson and consider switching to adenosine 30mg/10ml solution for infusion vials or unlicensed adenosine 1mg/1ml infusion bags (see Clinical Information). There may be a requirement for a refresher training if a switch is made to adenosine and clinicians are not up to date with its use; • if the above option is not considered appropriate, consider prescribing unlicensed imports of regadenoson 400 micrograms in 5ml solution for injection. Prescribers should work with local pharmacy teams to ensure orders are placed within appropriate time frames as lead times may vary (see Clinical Information); and • if none of the above options are considered appropriate, unlicensed imports of dipyridamole 50mg in 10ml ampoules for intravenous injection can be sourced. Prescribers should work with local pharmacy teams to ensure orders are placed within appropriate time frames as lead times may vary (see Clinical Information) and advice from specialists should be sought. <p>Alternatives Licensed alternatives Adenosine 30mg in 10ml solution for infusion vials are available and can support a partial uplift in demand.</p> <p>Unlicensed adenosine Unlicensed adenosine 1mg/1ml infusion bags are available and can support a partial uplift in demand. The following unlicensed manufacturing unit has confirmed the availability of unlicensed adenosine 1mg/1ml infusion bags (please note there may be other companies or units that can also source supplies):</p> <ul style="list-style-type: none"> • Royal Free London NHS Foundation Trust – Royal Free Pharmaceuticals <p>Unlicensed imports The following specialist importers have confirmed they can source unlicensed imports of regadenoson 400 micrograms in 5ml solution for injection (please note there may be other companies that can also source supplies):</p> <ul style="list-style-type: none"> • Alium • Clinigen • Durbin • Mawdsleys <p>If the above listed options are not considered appropriate, the following specialist importers have confirmed they can source unlicensed imports of dipyridamole 50mg in 10ml ampoules for intravenous injection (please note there may be other companies that can also source supplies):</p> <ul style="list-style-type: none"> • Mawdsleys <p>Prescribers should work with local pharmacy teams to ensure orders are placed within appropriate time frames as lead times may vary.</p> <p>Medicine Supply Notification Number MSN/2022/083</p>
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	<p>Links</p> <ul style="list-style-type: none"> • Rapiscan prescribing information • SmPC adenosine 30mg/10ml solution for infusion • SmPC Adenoscan® 30mg/10ml solution for infusion
<p>SHORTAGE: Glycerol 1g suppositories</p>	<p>Anticipated re-supply date 17 February 2023</p> <p>Actions All clinicians should:</p> <ul style="list-style-type: none"> • consider prescribing half a 2g suppository in infants who require a 1g dose and where relevant, advise parents/carers to cut the suppository lengthways to ensure a more accurate dose is administered; • consider prescribing docusate sodium enemas in adults who require a rectal stool softener, if glycerol 4g suppositories are unavailable, and the oral route is not suitable; • seek specialist advice on management options if a glycerol ‘chip’ from the 1g suppository was being used in neonates; and • be aware that other laxatives remain available; choice will depend on stool consistency and products already tried. <p>Alternatives Glycerol 2g suppositories remain available and can support an increase in demand in place of the 1g suppositories.</p> <p>Please refer to the links below for further information: SmPC Glycerol suppositories SmPC Docusate sodium (Norgalax®) 10g micro-enema BNF Treatment Summary – Constipation BNFC Treatment Summary – Constipation</p>
<p>SHORTAGE: Aspirin Suppositories</p>	<p>Anticipated re-supply date</p> <p>Aspirin 300mg suppositories (Martindale Pharmaceuticals Ltd) 5 May 2023 Aspirin 150mg suppositories (Martindale Pharmaceuticals Ltd) 5 May 2023</p> <p>Actions Clinicians should</p> <ul style="list-style-type: none"> • review all patients on aspirin suppositories and switch patients to oral therapy if possible; • consider using an alternative licensed medication(s) where a switch to oral therapy is not possible; • prescribe appropriate Specials or unlicensed imports where the above actions are not considered appropriate (see information below). <p>Alternatives Use oral therapy if possible. Consider an alternative licensed medication where oral therapy is not possible. Use specials or unlicensed imports where licensed alternatives are not considered appropriate (see information below)</p> <p>Please see the following links for further information:</p> <ul style="list-style-type: none"> • SmPC aspirin 150mg suppositories

	<ul style="list-style-type: none"> • SmPC aspirin 300mg suppositories <p>Medicines Supply Notification Number MSN/2022/004</p>
<p>SHORTAGE: Bezafibrate (Bezalip) 200mg tablets</p>	<p>Anticipated re-supply date 24 March 2023</p> <p>Actions Clinicians should</p> <ul style="list-style-type: none"> • defer initiating patients on bezafibrate 200mg (Bezalip) until the shortage has resolved • where patients have insufficient supplies to last until the re-supply date, review to ensure that treatment is still required and in line with national guidelines • switch to an alternative fibrate if treatment is still required, ensuring that renal function is appropriate for use of that agent, there is no intolerance to the excipients, and patient is counselled on the appropriate dose (see clinical information below) • if the above options are not considered appropriate, advice should be sought from specialists <p>Alternatives Bezafibrate 400mg modified-release tablets The only other products available are the 400mg modified release tablets, which are licensed for the same indications, but taken once daily. As fibrates have a flat dose response curve, patients could be switched to this formulation, regardless of the previous dose taken of the immediate release tablet, provided renal function allows (modified-release contra-indicated when creatinine clearance <60ml/min).</p> <p>Indication</p> <ul style="list-style-type: none"> • Treatment of severe hypertriglyceridaemia with or without low HDL cholesterol. • Mixed hyperlipidaemia when a statin is contraindicated or not tolerated. <p>Dose 400mg daily</p> <p>Renal impairment contraindications Contraindicated in severe renal impairment when serum creatinine >135 micromol/l or creatinine clearance <60 ml/min</p> <p>Fenofibrate Fenofibrate preparations are available in 67mg, 200mg, 267mg capsules and 160mg tablets for patients with creatinine clearance < 60ml/min.</p> <p>Indications and dose</p> <ul style="list-style-type: none"> • Severe hypertriglyceridaemia with or without low HDL-C <ul style="list-style-type: none"> ○ 67mg TDS (range BD to QDS) • Mixed hyperlipidaemia when statin contraindicated/not tolerated <ul style="list-style-type: none"> ○ 160mg daily • Mixed hyperlipidaemia in patients at high CV risk in addition to statin when triglycerides and HDL-C are not adequately controlled. <ul style="list-style-type: none"> ○ 200mg daily; can be titrated up to 267mg daily <p>Renal impairment contraindications</p> <ul style="list-style-type: none"> • If the eGFR is between 30 to 59mL/min, the dose should not exceed 100mg standard or 67mg micronized once daily. • Fenofibrate should not be used if severe renal impairment (eGFR <30 mL/min per) is present. • If the eGFR decreases persistently to <30mL/min, fenofibrate should be discontinued. <p>Medicine Supply Notification</p>

	<p>MSN/2023/012</p> <p>Links</p> <ul style="list-style-type: none"> • BNF bezafibrate • SPC Bezalip • BNF fenofibrate • SPC fenofibrate • MHRA Fibrates: first-line treatment not recommended • NICE. Cardiovascular disease: risk assessment and reduction, including lipid modification. Clinical guideline [CG181] • NICE. Familial hypercholesterolaemia: identification and management. Clinical guideline [CG71]
<p>SHORTAGE: Matrifen (fentanyl) 25 and 50micrograms/hour transdermal patches</p>	<p>Anticipated re-supply date –</p> <p>Actions Clinicians should</p> <ul style="list-style-type: none"> • consider prescribing alternative fentanyl transdermal matrix patches at the same dose, which are able to support the market during this time • ensure that patients are not intolerant to any of the excipients and are counselled on the appropriate dose • advise patients to be aware of signs and symptoms of decreased pain control relief and adverse events <p>Alternatives The following presentations of fentanyl 25microgram/hour transdermal patches are available:</p> <ul style="list-style-type: none"> • Durogesic DTrans 25micrograms/hour transdermal patches • FENCINO 25micrograms/hour transdermal patches • Mezolar Matrix 25micrograms/hour transdermal patches • Opiodur 25micrograms/hour transdermal patches • Victanyl 25micrograms/hour transdermal patches • Yemex 25micrograms/hour transdermal patches <p>The following presentations of fentanyl 50microgram/hour transdermal patches are available:</p> <ul style="list-style-type: none"> • Durogesic DTrans 50micrograms/hour transdermal patches • FENCINO 50micrograms/hour transdermal patches • Mezolar Matrix 50micrograms/hour transdermal patches • Opiodur 50micrograms/hour transdermal patches • Victanyl 50micrograms/hour transdermal patches • Yemex 50micrograms/hour transdermal patches
<p>SHORTAGE: Fentanyl (Effentora) 200 microgram and 400 microgram buccal tablets</p>	<p>Anticipated re-supply date 20 February 2023</p> <p>Actions For Effentora 200 microgram and 400 microgram buccal tablets, where patients do not have sufficient stock to last until the resupply date, clinicians should:</p> <ul style="list-style-type: none"> • consider prescribing Effentora 100 microgram to patients using Effentora 200 microgram • if the above is not considered appropriate and for all patients on Effentora 400 microgram, consider prescribing alternative immediate-release fentanyl products, taking into consideration the patient’s preferences (see clinical information);

- ensure that the patient is not intolerant to any of the excipients in the alternative product and is counselled on any changes including changes to their dosing regimen and;
- seek specialist advice, as necessary, to titrate the new formulation taking into consideration that immediate release fentanyl products are not interchangeable and patients should not be converted on a microgram per microgram basis from one product to another (see clinical Information).

Alternatives

Effentora preparations

The following Effentora preparations remain available:

- Effentora 100 microgram buccal tablets – can support a partial uplift in demand
- Effentora 600 microgram and 800 microgram buccal tablets
- Effentora 200 micrograms buccal tablets- back in stock

Immediate release fentanyl formulations

The following alternative formulations of immediate release fentanyl remain available and will be able to support increased demand.

Actiq lozenges

Bioavailability

65%

Time to response (minutes)

20

Abstral sublingual tablets

Bioavailability

50%

Time to response (minutes)

20 – 40

Cynril lozenges

Bioavailability

50%

Time to response (minutes)

2 – 40

Fenhuma sublingual tablets

Bioavailability

54%

Time to response (minutes)

22.5 – 240

PecFent nasal spray

Bioavailability

Not available

Time to response (minutes)

15 – 20

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Please see links below for further information.

Links

- [SmPC - Actiq Lozenges](#)
- [SmPC - Cynril Lozenges](#)
- [SmPC - Effentora buccal tablets](#)
- [SmPC - Abstral sublingual tablets](#)
- [SmPC - Fenhuma sublingual tablets](#)
- [SmPC - PecFent nasal spray](#)

SHORTAGE:

Anticipated re-supply date

<p>Acetylcholine chloride 20mg powder and solvent for solution for intraocular irrigation vials and ampoules</p>	<p>17 February 2023</p> <p>Alternatives Unlicensed imports Unlicensed imports (lead times vary) are available from:</p> <ul style="list-style-type: none"> • Clinigen – lead time is one week. • Mawdsleys • Orifarm UK • Target • Alium
<p>SHORTAGE: Urokinase injection</p>	<p>Anticipated re-supply date</p> <p>Syner-KINASE 10,000unit powder for solution for injection vials (Syner-Med (Pharmaceutical Products) Ltd) 7 April 2023 Syner-KINASE 25,000unit powder for solution for injection vials (Syner-Med (Pharmaceutical Products) Ltd) 7 April 2023</p> <p>Actions</p> <ul style="list-style-type: none"> • Following local risk assessment consider switching to an alternative treatment option most appropriate to meet patient requirements (see below) • Nursing staff will require education and training on the administration of an alternative agent or dilution of Syner-KINASE 100,000IU • If Syner-KINASE 100,000IU injection is used, put measures in place to reduce the risk of a dose error when diluting the product, for example, ensure clear advice on dilution is available in all clinical areas using Syner-KINASE and consider additional warning labels on the 100,000IU product regarding the potential need to dilute • Consult a specialist pharmacist or nurse for advice when required. <p>Alternatives TauroLock™-U25.000 TauroLock™-U25.000 lock solution containing urokinase 25,000IU Actilyse Cathflo (alteplase) 2mg powder for solution for injection and infusion Actilyse Cathflo [alteplase] 2mg is currently out of stock. Syner-KINASE (urokinase) 100,000IU injection The manufacturer has issued a Dear HCP Letter regarding dilution of their high strength product to desired concentration (as substitute for Syner-KINASE 25,000IU).</p>
<p>SHORTAGE: Estradiol (Estradot) 25micrograms/24hours, 50micrograms/24hours and 100micrograms/24hours patches</p>	<p>Anticipated re-supply date</p> <p>Estradot 25micrograms/24hours patches (Novartis Pharmaceuticals UK Ltd) 17 February 2023 Estradot 50micrograms/24hours patches (Novartis Pharmaceuticals UK Ltd) 24 February 2023 Estradot 100micrograms/24hours patches (Novartis Pharmaceuticals UK Ltd) 17 February 2023</p> <p>Actions For patients with insufficient supplies of estradiol (Estradot) transdermal patches:</p> <ul style="list-style-type: none"> • community pharmacists may supply an equivalent strength of Evorel (estradiol) patches in accordance with active Serious Shortage Protocols (SSPs) for Estradot 50microgram and 100microgram patches for eligible patients (see supporting information below)

	<ul style="list-style-type: none"> • clinicians should consider prescribing Evorel (estradiol) 25microgram/24hours patches for patients with insufficient supplies of Estradot (estradiol) 25microgram/24hours patches until the resupply date • patients should be counselled regarding the switch in brand at the point of supply; • pharmacists must ensure that the patient’s prescriber and/or GP practice is notified when supplying a patient in accordance with this SSP; and • if the patient is deemed ineligible or does not consent to receive an alternative product via the SSP, they should be referred to the prescriber to establish if ongoing treatment is required and switch to an alternative hormone replacement therapy (HRT), taking into consideration wider supply issues <p>Alternatives An alternative brand of estradiol patches, Evorel, of the same respective strengths remain available and can support a full uplift in demand. SSPs for Estradot 50microgram/24hours and 100microgram/24hours patches were issued on 25/01/2023.</p> <p>Medicine Supply Notification Number MSN/2023/009</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC - Estradot patches • SmPC - Evorel patches
<p>SHORTAGE: Fluoxetine 20mg/5mL oral solution and fluoxetine (Olena) 20mg dispersible tablets</p>	<p>Anticipated re-supply date Fluoxetine 20mg/5ml oral solution 10 March 2023 Olena 20mg dispersible tablets (Advanz Pharma) –</p> <p>Actions Where patients have insufficient supply of fluoxetine 20mg/5mL oral solution or fluoxetine 20mg dispersible tablets to last until the re-supply date, prescribers should:</p> <ul style="list-style-type: none"> • not initiate any new patients on fluoxetine 20mg/5mL oral solution or fluoxetine 20mg dispersible tablets • review patients to determine if they are able to swallow solid dosage forms and consider prescribing an equivalent dose of fluoxetine using the capsules, where available strengths allow this • where patients are not able to swallow solid dosage forms, consider prescribing an equivalent dose of fluoxetine using the capsules, where available strengths allow this, the contents of which can be emptied out and dispersed in water (off-label use) and ensure they are counselled on how to do this (see Supporting Information); or • consider prescribing unlicensed fluoxetine 20mg/5mL oral suspension available from Specials manufacturers (see supporting information) • where the above options are not considered appropriate, and a liquid formulation is required, consider an alternative selective serotonin reuptake inhibitor (SSRI) liquid preparation (see alternatives), taking into account the indication for use, previous treatments tried, current fluoxetine dose, and also the need to seek specialist advice on more complex patients being treated for depression or patients with bulimia nervosa. <p>Alternatives The following alternatives are available:</p> <ul style="list-style-type: none"> • Fluoxetine capsules, including the 10mg and 20mg strengths.

	<ul style="list-style-type: none"> • Unlicensed fluoxetine 20mg/5mL oral suspension are available via a number of specials manufacturers • Citalopram 40mg/mL oral drops and escitalopram (Cipralext) 20mg/mL oral drops <p>Medicines Supply Notification Number MSN/2023/007</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC - fluoxetine 20mg dispersible tablets • SmPC - fluoxetine 20mg/5ml oral solution • SmPC - citalopram 40mg/5mL oral drops • SmPC - escitalopram (Cipralext) oral drops • BNF - Antidepressant drugs
<p>SHORTAGE: Sarilumab (Kevzara) 200mg solution for injection pre-filled pens</p>	<p>Anticipated re-supply date Kevzara 200mg/1.14ml solution for injection pre-filled pens (Sanofi Genzyme) 17 March 2023</p> <p>Actions</p> <p>Homecare providers should:</p> <ul style="list-style-type: none"> • assess 'at-home' stock holding of all patients on sarilumab 200mg pre-filled pens • ensure that where existing patients have insufficient stocks of sarilumab 200mg pre-filled pens that they are provided with sarilumab 200mg pre-filled syringes (German livery stock) • ensure that all patients requiring a change in device during this period are contacted to inform them of the change in device and to offer them nursing support • when supplying the German livery stock to patients, discard the German leaflet in the pack and supply patients with the UK Patient Information Leaflet (PIL) (see links). Ensure patients are appropriately counselled about any changes to their device <p>Clinical teams should:</p> <ul style="list-style-type: none"> • ensure that no new patients are initiated on Sarilumab 200mg pre-filled pens during this time • if sarilumab (Kevzara) 200mg/1.14ml solution for injection pre-filled syringes German livery stock is deemed unsuitable (e.g., due to dexterity issues), appropriate advice should be sought from specialists on alternative management options, taking into account previous treatments tried (see clinical information) <p>Alternatives Sarilumab (Kevzara) 200mg/1.14ml solution for injection pre-filled syringes have been sourced in German livery. This is considered licensed in Great Britain (GB) and has been approved by the MHRA for supply to GB (England, Scotland and Wales) and Northern Ireland.</p> <p>Medicine Supply Notification Number MSN/2023/005</p> <p>Links</p> <ul style="list-style-type: none"> • BNF - Sarilumab • BNF - Rheumatoid arthritis • SmPC - Sarilumab 200mg pre-filled pen • SmPC - Sarilumab 200mg pre-filled syringe • PIL - Kevzara 200 mg solution for injection in pre-filled pen • PIL - Kevzara 200 mg solution for injection in pre-filled syringe • Sanofi Dear Healthcare Professional letter GB • Sanofi Dear Healthcare Professional letter NI

<p>SHORTAGE: Sulfasalazine 500mg suppositories</p>	<p>Anticipated re-supply date Salazopyrin 500mg suppositories (Pfizer Ltd) 24 March 2023</p> <p>Actions Where patients have insufficient supplies to last until the re-supply date, prescribers should:</p> <ul style="list-style-type: none"> • defer initiating new patients on sulfasalazine (Salazopyrin) 500mg suppositories until the supply disruption has resolved • consider prescribing an alternative aminosalicylic acid (5-ASA) containing suppository (see Clinical Information). Patients should be counselled by the prescriber about use of a different product and, if applicable, about a change in dosing regimen; and • be aware that the use of mesalazine for Crohn’s disease affecting the rectum will be an off-label use and the patient should be counselled accordingly • refer to local formularies and treatment guidelines and/or obtain specialist advice from local gastroenterology teams on consideration of alternative 5-ASA formulations (enemas or oral therapies) if the suppositories listed above are not considered suitable. <p>Alternatives Information on sulfasalazine 500mg suppositories and alternative 5-ASA suppositories that can support an uplift in demand.</p> <p>Salazopyrin (sulfasalazine) 500mg suppositories Licensed indication Treatment of ulcerative proctitis. Recommended Adult Dose Adjusted according to the severity of the disease and the patient’s tolerance Typically, 1 to 2 suppositories twice daily</p> <p>Pentasa (mesalazine) 1g suppositories Licensed indication Treatment of ulcerative proctitis. Recommended Adult Dose Acute treatment: 1 suppository once daily for 2 to 4 weeks Maintenance treatment: 1 suppository once daily</p> <p>Octasa (mesalazine) 1g suppositories Licensed indication Treatment of acute mild to moderate ulcerative proctitis. Maintenance of remission of ulcerative proctitis. Recommended Adult Dose Acute treatment: 1 suppository once daily for a duration as deemed appropriate by the clinician Maintenance treatment: 1 suppository once daily</p> <p>Salofalk (mesalazine) 500mg suppositories Licensed indication Management of mild and moderate episodes of ulcerative colitis that is limited to the rectum Recommended Adult Dose The dosage should be adjusted to suit the progress of the condition 1 to 2 suppositories, 2 to 3 times daily</p> <p>Salofalk (mesalazine) 1g suppositories Licensed indication Treatment of acute mild to moderate ulcerative colitis that is limited to the rectum (ulcerative proctitis) Recommended Adult Dose 1 suppository once daily</p>
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	<p>Medicines Supply Notification Number MSN/2023/008</p> <p>Links</p> <ul style="list-style-type: none"> • BNF – sulfasalazine • BNF – mesalazine • SmPC – sulfasalazine (Salazopyrin) 500mg suppositories • SmPC – mesalazine suppositories
<p>SHORTAGE: Zopiclone 3.75mg tablets</p>	<p>Anticipated re-supply date 24 February 2023</p> <p>Actions Where patients have insufficient supplies to last until the re-supply date, clinicians should:</p> <ul style="list-style-type: none"> • review patients to determine if this treatment should be continued • if deemed necessary, consider whether zopiclone 7.5mg tablet preparations approved for splitting would be appropriate <ul style="list-style-type: none"> ○ ensuring the patient is not intolerant to any of the excipients, ○ can split the tablets (prescribe a pill splitter if needed), and ○ is reassured there is no change in dose from use of half a 7.5mg tablet (see clinical information) • for patients who require ongoing treatment and have issues halving the tablets, consider switching to an alternative Z drug, zolpidem 5mg tablets, ensuring the patient is not intolerant to any of the excipients and is counselled on the change in medication (see clinical information) and • on ongoing basis, review need for continued treatment as hypnotics are not licensed for long-term use due to risk of dependence <p>Alternatives</p> <p>Zopiclone 7.5mg tablets The following brands of zopiclone 7.5mg tablets are licensed to be halved along a break line into two equal doses.</p> <p>Zopiclone 7.5 mg film-coated tablets – Crescent Pharma Ltd. SPC description: “White, round, biconvex film-coated tablets. The film-coated tablets are scored on one side and are divisible. The tablet can be divided into equal doses.”</p> <p>Zopiclone 7.5mg tablets – Aurobindo Pharma – Milpharm Ltd. SmPC description: “White, round, (diameter: 7.6mm), biconvex film coated tablets debossed with ‘Z & 2’ separated with break line on one side and break line on the other side. The tablet can be divided into equal doses.”</p> <p>Zimovane 7.5mg film-coated tablets – Sanofi SmPC description: “White, elliptical, biconvex film-coated tablets with a score-line on one side. The tablet can be divided into equal halves.”</p> <p>Zolpidem Zolpidem 5mg tablets are available (see clinical information).</p> <p>Medicines Supply Notification Number MSN/2023/006</p> <p>Links</p> <ul style="list-style-type: none"> • BNF: Hypnotics and anxiolytics • BNF Guidance – Zopiclone • SmPC - Zopiclone 3.75mg tablets • SmPC - Zopiclone 7.5mg tablets (Aurobindo Pharma – Milpharm Ltd.) • SmPC - Zopiclone 7.5 mg film-coated tablets (Crescent Pharma Ltd.) • SmPC - Zimovane 7.5mg film-coated tablets (Sanofi) • SmPC - Zolpidem tartrate 5mg tablets
<p>SHORTAGE:</p>	<p>Anticipated re-supply date 29 December 2023</p>

<p>Ketoconazole (Dandrazol) 2% shampoo</p>	<p>Actions Prescribers are advised to:</p> <ul style="list-style-type: none"> • review the need for an anti-fungal shampoo and to not prescribe this product for dandruff; patients should be encouraged to manage mild dandruff with long term over the counter treatments and self care, further information is available from the NHS England website • where prescribed treatment is necessary, steroid scalp application should be considered <p>Alternatives Over The Counter options OTC products for the treatment of seborrhoeic dermatitis:</p> <ul style="list-style-type: none"> • Benzalkonium chloride • Coal tar • Cetrimide • Ketoconazole 2% shampoo (GSL and P) • Selenium sulphide based products <p>Two are described as having antifungal (Selsun) and fungicidal (Ceanel Concentrate) properties</p> <p>Coal tar preparations for dandruff</p> <ul style="list-style-type: none"> • Alphosyl 2 in 1 shampoo • Neutrogena T/Gel Therapeutic Shampoo • Polytar Scalp Shampoo <p>Prescription options Topical steroid scalp applications The BNF suggests alternative steroid preparations for seborrhoeic dermatitis:</p> <ul style="list-style-type: none"> • Betacap Scalp Application • Betnovate Lotion • Betnovate Scalp Application • Elocon Scalp Lotion
<p>SHORTAGE: Sofradex ear/eye drops</p>	<p>Anticipated re-supply date 28 April 2023</p> <p>Actions Review the need for Sofradex drops. Prescribe an alternative combination drop suggested in the alternatives section, depending on whether treatment is for the eye or the ear.</p> <p>Alternatives The following alternative presentations are available</p> <p>For the ears</p> <ul style="list-style-type: none"> • Gentisone HC drops • Betnesol-N drops • Vista-Methasone N • Otosporin drops • Otomize spray <p>For the eyes</p> <ul style="list-style-type: none"> • Maxitrol drops • Betnesol N drops <p>Please note: Predsol N drops have been discontinued therefore these would not be a suitable alternative.</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC Sofradex • NICE Otitis Externa preparations • Betnesol ear / eye / nose drops

	<ul style="list-style-type: none"> • Maxitrol eye drops • Gentison HC drops • Otomize spray • Vistamethasone N drops • Otosporin ear drops
<p>DISCONTINUATION: Instanyl (fentanyl) nasal sprays Instanyl 50micrograms/dose nasal spray (Takeda UK Ltd) Instanyl 100micrograms/dose nasal spray (Takeda UK Ltd) Instanyl 200micrograms/dose nasal spray (Takeda UK Ltd)</p>	<p>Alternatives Immediate release fentanyl products are not interchangeable and when considering switching patients from one product to another, patients should not be converted on a microgram per microgram basis from one to another; it is necessary to titrate the new formulation with advice from a specialist.</p> <p>SPS advice Please refer to the SPS owned page: Clinical management of Fentanyl nasal sprays shortage for further advice on alternatives.</p>
<p>SHORTAGE: Norditropin (somatropin) Flexpro 10mg/1.5ml, 15mg/1.5ml and Norditropin (somatropin) NordiFlex 5mg/1.5ml, 10mg/1.5ml and 15mg/1.5ml solution</p>	<p>Anticipated re-supply date Norditropin FlexPro 5mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 28 February 2023 Norditropin FlexPro 10mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 24 February 2023 Norditropin FlexPro 15mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 28 February 2023 Norditropin NordiFlex 5mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 1 pre-filled disposable injection 5 January 2024 Norditropin NordiFlex 10mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 5 January 2024 Norditropin NordiFlex 15mg/1.5ml solution for injection pre-filled pens (Novo Nordisk Ltd) 5 January 2024</p> <p>Actions Actions for secondary care Secondary care pharmacy teams should work with clinical specialists and their local pharmacy homecare lead to:</p> <ul style="list-style-type: none"> • ensure that new patients are not initiated on Norditropin Flexpro or Norditropin NordiFlex for the full duration of 2023; • review all patients that have insufficient stock until the re-supply date (mid-end Feb 2023), including those under shared care arrangements, prescribed Norditropin Flexpro 5mg, 10mg and 15mg Pens as a priority and where clinically appropriate, issue a new prescription for the appropriate strength of Omnitrope SurePal for those patients that do not have sufficient stock to last until the re-supply date; • once all patients prescribed Norditropin Flexpro 5mg, 10mg and 15mg Pens have been reviewed, review all patients, including those under shared care arrangements, that are prescribed Norditropin NordiFlex 5mg, 10mg and

	<p>15mg Pens and where clinically appropriate issue a new prescription for the appropriate strength of Omnitrope SurePal;</p> <ul style="list-style-type: none"> ensure all new Omnitrope SurePal prescriptions are sent to your current Norditropin homecare service provider or outpatient dispensary. Please note that Sciensus and Alcura can provide the Omnitrope SurePal service and new registration forms are not required for existing patients; communicate with home care providers if nurse led injection training is required on the new Omnitrope SurePal prescription; review prescription duration and frequency and where clinically appropriate issue 6 month prescriptions, with 4 weekly delivery cycles; and ensure that contractual arrangements are discussed with the homecare provider. <p>Actions for homecare providers</p> <p>Homecare providers should:</p> <ul style="list-style-type: none"> ensure that once a new prescription for Omnitrope SurePal is received, the patient's existing Norditropin prescription is immediately cancelled; call patients to inform them of the change to their prescription while arranging delivery and offer nursing support to counsel on the change in device; and work with the prescriber and the Trust homecare lead to ensure nurse led training or, if available, administration support is offered where requested. <p>Actions for outpatient dispensaries</p> <p>Outpatient dispensaries should ensure that:</p> <ul style="list-style-type: none"> once a new prescription for Omnitrope SurePal is received, the patient's existing Norditropin prescription is cancelled; patients receive a patient education pack and are counselled about their change in prescription at the point of first dispensing; and patients are directed back to their specialist team if they flag a need for additional nurse-led training or ongoing nursing support. <p>Actions for GP surgeries:</p> <p>GP surgeries who prescribe Norditropin should:</p> <ul style="list-style-type: none"> proactively identify all Norditropin Nordiflex patients and refer them to their specialist prescribing centre for review and switching to Omnitrope SurePal proactively identify all Norditropin Flexpro patients that do not have sufficient stock to last until the re-supply date and refer them to their specialist prescribing centre for review and switching to Omnitrope SurePal <p>Alternatives</p> <p>Omnitrope (somatropin) SurePal 5mg/1.5ml, 10mg/1.5ml and 15mg/1.5ml solution for injection cartridges remain available and will be able to support a full increase in demand during this time.</p> <p>If Omnitrope SurePal is not an appropriate alternative, other products containing somatropin remain available. Ultimately the decision on switching to an alternative device is one that will be made by clinicians taking into account the most suitable therapy for their patient.</p> <p>Medicines Supply Notification Number MSN/2023/001</p> <p>Links</p> <ul style="list-style-type: none"> SmPC Norditropin SmPC Omnitrope SmPC Saizen SmPC NutropinAq BNF Somatropin
<p>DISCONTINUATION: Insuman Rapid cartridges</p>	<p>Date stock to be exhausted: 31 May 2023</p>

<p>Insuman Rapid 100units/ml solution for injection 3ml cartridges (Sanofi)</p>	<p>Actions Prescribers should:</p> <ul style="list-style-type: none"> not initiate any new patients on Insuman products review all patients prescribed Insuman Rapid and consider prescribing alternative neutral (soluble) insulin ensure that after switching, patients are counselled on how to use the new device, explain that the dose of insulin remains the same, but adjustments may be needed depending on blood glucose levels and signs of hypoglycaemia <p>Alternatives Neutral (soluble) Insulin Brands include:</p> <ul style="list-style-type: none"> Actrapid vials Humulin S vials and cartridges <p>All of the above alternative insulin preparations can support a full uplift in demand.</p>
<p>SHORTAGE: Licensed and Unlicensed Epidural Infusion Bags</p>	<p>Anticipated re-supply date –</p> <p>Actions Refer to the National Patient Safety Alert for further information.</p>
<p>SHORTAGE: Vigabatrin 500mg tablets</p>	<p>Anticipated re-supply date Sabril 500mg tablets (Sanofi) 3 March 2023</p> <p>Actions Where patients have insufficient supplies to last until the re-supply date, prescribers should:</p> <ul style="list-style-type: none"> consider prescribing vigabatrin (Sabril) 500mg granules in the interim, ensuring that the patient is not intolerant to any of the excipients, is counselled that the dose remains unchanged, and is provided with advice on how to reconstitute the granules (see Supporting Information below) advise patients to report any loss in seizure control and side effects after the switch; and if the above options are not considered appropriate, seek advice from specialists on management options <p>Alternatives An alternative formulation of the Sabril brand of vigabatrin is the 500mg granules, which remain available, and will be able to support a full uplift in demand.</p> <p>Medicine Supply Notification Number MSN/2023/003</p> <p>Links</p> <ul style="list-style-type: none"> BNF vigabatrin SmPC Sabril Antiepileptic drugs: updated MHRA advice on switching between different manufacturers' products
<p>SHORTAGE: Semaglutide (Ozempic) 1mg/0.74ml and 0.5mg/0.37ml solution for injection pre-filled disposable device</p>	<p>Medicine Anticipated re-supply date Ozempic 0.5mg/0.37ml solution for injection 1.5ml pre-filled pens (Novo Nordisk Ltd) 1 pre-filled disposable injection 31 January 2024 Ozempic 1mg/0.74ml solution for injection 3ml pre-filled pens (Novo Nordisk Ltd) 1 pre-filled disposable injection</p>

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Ozempic 0.25mg/0.19ml solution for injection 1.5ml pre-filled pens (Novo Nordisk Ltd) 1 pre-filled disposable injection

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Actions

The advice below has been put together with input from the Specialist Pharmacy Service's Medicines Information department.

Clinicians in primary and secondary care should:

- ensure that Ozempic[®] is being used for licensed indications only;
- not initiate new patients on Ozempic[®] until full supplies become available in January 2024
- work with local pharmacy teams to understand availability of Ozempic. Please see advice below if Ozempic is unavailable and patient does not have sufficient supplies.

For patients who have insufficient supplies to last until the pharmacy is re-supplied, clinicians should:

- consider appropriateness of extending the dosing interval (e.g., administer every 10 days) of existing stock of Ozempic[®] held by the patient to last, if possible, until the resupply date;
- consider for those patients who are also on insulin therapy, and unable to obtain a supply of Ozempic[®], whether the dose of insulin can be increased to accommodate the period off Ozempic[®] treatment, without needing to switch to an alternative GLP-1 RA;
- prescribe an alternative GLP-1 RA for patients who need to be continued on this therapy and have insufficient supplies of Ozempic[®]. Clinicians involved in prescribing or dispensing the new medicine for this patient should ensure that the patient is counselled on the dose schedule and how to operate the new pen injector (if parenteral therapy is selected), as well as checking for intolerance to any of the excipients (see Supporting Information below); and
- seek advice from specialists if there is uncertainty about selecting the most appropriate GLP-1 RA.

Alternatives

Liraglutide

The following brand is available in the presentation below:

- Victoza 6mg/ml solution for injection in prefilled pen

Dose

Initially 0.6 mg **once daily** for at least 1 week, then increased to 1.2 mg once daily for at least 1 week, then increased if necessary to 1.8 mg once daily.

Indication

Type 2 diabetes mellitus as monotherapy (if metformin inappropriate), or in combination with other antidiabetic drugs, (including insulin) if existing treatment fails to achieve adequate glycaemic control.

Exenatide

The following brands are available in the presentations below:

- Byetta 5micrograms/0.02ml solution for injection 1.2ml pre-filled pens
- Byetta 10micrograms/0.04ml solution for injection 1.2ml pre-filled pens
- Bydureon 2mg/0.85ml prolonged-release suspension for injection 1.2ml pre-filled pens

Dose

Byetta

Initially 5 micrograms **twice daily** for at least 1 month, then increased if necessary up to 10 micrograms twice daily, dose to be taken within 1 hour before 2 main meals (at least 6 hours apart)

Bydureon

2 mg **once weekly**

	<p>Indication Type 2 diabetes mellitus in combination with other antidiabetic drugs (including insulin) if existing treatment fails to achieve adequate glycaemic control.</p> <p>Dulaglutide Dulaglutide is available as the brand Trulicity however it is unable to support an uplift in demand.</p> <p>Semaglutide Available in the brands and presentations below:</p> <ul style="list-style-type: none"> • Ozempic 0.25 mg solution for injection; remains available but can not support an uplift in demand. • Rybelsus 3mg, 7mg and 14mg tablets; remain available but can only support a partial uplift in demand. <p>Medicine Supply Notification Number MSN/2022/080</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC Ozempic (semaglutide) solution for injection in pre-filled pen • NICE Guidelines: Type 2 diabetes • BNF treatment summary: type 2 diabetes • SmPC Victoza 6 mg/ml (liraglutide) solution for injection in pre-filled pen • SmPC Bydureon (exenatide) 2 mg prolonged release suspension for injection in pre-filled pen • SmPC Rebelsus (semaglutide tablets)
<p>SHORTAGE: Calcichew 500mg chewable tablets</p>	<p>Anticipated re-supply date: 17 February 2023</p> <p>Actions Clinicians should be aware that:</p> <ul style="list-style-type: none"> • Calcichew 500mg chewable tablets currently remain out of stock until mid-January 2023 <p>Alternatives The following alternatives remain available and can support an uplift in demand:</p> <ul style="list-style-type: none"> • Calcichew-D3 500 mg/200 IU chewable tablets <p>Other calcium carbonate chewable tablets remain available</p> <p>Please see the links below for further information</p> <p>Links</p> <ul style="list-style-type: none"> • SmPC Calcichew 500mg Chewable Tablet • SmPC Calcichew-D3 500 mg/200 IU Chewable Tablets • BNF Calcium carbonate
<p>SHORTAGE: Chlordiazepoxide 5mg and 10mg capsules</p>	<p>Medicine</p> <p>Anticipated re-supply date</p> <p>Chlordiazepoxide 10mg capsules 3 March 2023</p> <p>Chlordiazepoxide 5mg capsules 3 March 2023</p> <p>Actions Clinicians treating alcohol withdrawal should:</p> <ul style="list-style-type: none"> • not initiate any new patients on chlordiazepoxide 5mg and 10mg capsules; • consult local clinical protocols for use of diazepam or in the presence of significant or suspected impairment of liver function, short acting drugs such

	<p>as oxazepam and lorazepam as an alternative benzodiazepine (see clinical information); seek further advice from SPS Medicines Advice, if needed;</p> <ul style="list-style-type: none"> if necessary, seek advice from specialist addiction services for more complex/very severe cases. <p>Clinicians using chlordiazepoxide to treat anxiety should:</p> <ul style="list-style-type: none"> not initiate any new patients on chlordiazepoxide 5mg and 10mg capsules; review existing patients and where appropriate offer them, with support, the opportunity to consider tapering down and discontinuing treatment; consider switching to an alternative anxiolytic at an equivalent dose for patients unable to discontinue treatment (see clinical information); and seek advice from mental health services if there is difficulty managing the discontinuation of chlordiazepoxide or transitioning to another treatment. <p>Alternatives Diazepam tablets are an alternative benzodiazepine option for treating alcohol withdrawal and suppliers can support an increase in demand. For all other indications, alternative benzodiazepines remain available and will be able to support an increase in demand.</p> <p>Medicine Supply Notification Number MSN/2022/092</p> <p>Links</p> <ul style="list-style-type: none"> SmPC: Chlordiazepoxide BNF: Alcohol dependence BNF: Hypnotics and anxiolytics NICE guidance: Generalised anxiety disorder and panic disorder CKS: Benzodiazepine and z-drug withdrawal Clinical management of the alcohol withdrawal syndrome Medicines Advice contact details – SPS
<p>SHORTAGE: Pethidine 50mg tablets</p>	<p>Anticipated re-supply date 1 July 2023</p> <p>Alternatives The following specialist importers have confirmed they can source unlicensed Pethidine 50mg tablets (please note there may be other companies that can also source supplies):</p> <ul style="list-style-type: none"> Alium Mawdsley's
<p>SHORTAGE: Lidocaine 5% ointment</p>	<p>Anticipated re-supply date 3 March 2023</p> <p>Alternatives LMX4 (lidocaine 4% w/w) cream remains available. Lower strength lidocaine and lidocaine/prilocaine topical products remain available.</p>
<p>All Serious Shortage Protocols (SPP's) can be found: https://www.nhsbsa.nhs.uk/pharmacies-gp-practices-and-appliance-contractors/serious-shortage-protocols-ssps Shortage update taken from SPS Medicines Supply Toolkit on 16th February 2023. Information provided by DHSC and NHSEI Medicines Supply Teams and published on Specialist Pharmacy Services Medicines Supply Tool. Not formally reviewed by NHS Kent and Medway Medicines Optimisation. Practices are encouraged to register for access to the SPS website https://www.sps.nhs.uk/ and access this tool directly in real time.</p>	