MIL

Oxford University Hospitals NHS
NHS Foundation Trust

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This Medicines Information Leaflet is produced locally to optimise the use of medicines by encouraging prescribing that is safe, clinically appropriate and cost-effective to the NHS.

Therapeutic Substitution & Therapy Suspension

Therapeutic substitution is the practice of replacing a patient's prescription medicine with a chemically different medicine or different formulation of the same medicine that are expected to have the same clinical effect. Therapeutic substitution enables pharmacists to make changes to prescriptions, where the prescriber's intention is clear, without having to refer back to the prescriber.

Therapy suspension enables pharmacists to suspend prescriptions, where the medication is not considered urgent/critical to the patient's current admission, without having to refer back to the prescriber. Both therapeutic substitution and therapy suspension allow pharmacists to facilitate adherence to the agreed Oxford University Hospitals NHS Foundation Trust (OUHFT) Formulary guidance.

Background

- Pharmacists are required to recommend changes to medication to facilitate compliance with the agreed OUHFT guidelines.
- Pharmacists also need to make minor changes to prescriptions, not to alter the prescriber's intentions but to clarify the prescription for the person responsible for administering the medication. This prevents missed doses and ensures that the patient receives maximum benefit from the medication.
- Interrupting prescribers to ask for these changes to be made is often not convenient, can be disruptive to their work and if not able to be actioned immediately may leave the person responsible for administering the medication unable to give the prescription.
- The Medicines Act (1968) does not authorise pharmacists to amend prescriptions and so a protocol is required to cover this activity.
- The ability to action these changes within an agreed procedure will facilitate prompt administration of medication and discharge of patients.
- The concept of therapeutic substitution by pharmacists which is commonplace in UK hospital practice has been approved by the Medicines Management and Therapeutics Committee (MMTC) and is documented in the new OUH Trust Medicines Policy.
- The average length of stay for patients at OUHFT is 48 hours. When patients are admitted with regular medication not contained within OUHFT formulary, pharmacy will order this medication on a one-off continuation basis.
- Often patients will be discharged before the non-formulary medication has arrived from the supplier/manufacturer.
- The ability for pharmacists to suspend non-urgent/critical non-formulary medication within an agreed procedure will prevent unnecessary waste/financial lost by the trust.

Procedure

ePMA

There are three different ways of amending a prescription.

A) If you need to substitute with a completely **different drug**:

e.g.: ampicillin to amoxicillin.

1. Order the medicine that will be supplied.
2. Add "therapeutic substitution" on order comments tab.
3. Right-click on the prescription that is being substituted and select "Cancel/DC".
4. Choose "*Formulary substitution"* as the cancel reason and sign.

B) If you need to adjust the **dosage regimen** (and/or the **drug form**):

e.g.: metformin M/R to standard release

1. Right-click on the prescription that is being substituted and select "Cancel/Reorder".
2. Enter the new drug information and sign.

C) If you just need to amend the **drug form**:

e.g.: aspirin E/C to dispersible

1. Right-click on the prescription that is being substituted and select "Modify"
2. Alter the form field as required and sign.

If you are carrying out a Therapy Suspension:

1. Right-click on the prescription that is being suspended and select "Suspend"
2. Choose "*Formulary reason/supply"* as the cancel reason and sign

Paper drug chart

The pharmacist will score through both the name and administration section of the prescription that is being substituted/suspended, endorse 'therapeutic substitution' or 'therapy suspension' and sign and date it. If substituting for an alternative product, the pharmacist will rewrite in photocopy legible pen and sign the substituted medicine(s) in the signature box in place of the prescriber, also writing 'Therapeutic substitution' in the additional information section. In those cases where only the brand is substituted, pharmacist will only add the substitute brand to the additional information section e.g.: *"Use Adcal D3",* when "*Calcichew D3"* is prescribed.

The person responsible for administering the medication, usually a nurse, is authorised to give these newly-initiated medicines as per the Medicines Policy.

There are two MMTC agreed levels of therapeutic substitution:

- **Level 1** substitutions can be actioned by a Pharmacist screening charts in the dispensary without needing to refer to the patient's medical notes.
- **Level 2** substitutions require knowledge of the patient or access to clinical information and so are actioned at ward/clinic level only.

When appropriate, long-term medicines may be switched to the recommended preparation on admission [i.e. dispose of any remaining Patient's Own Drugs (PODs)].

The new entry must be endorsed as 'TS' (therapeutic substitutions) next to the prescription box and the switch communicated to the General Practitioner on discharge.

Medicinal therapies which are suspended as per this MIL will not be supplied on discharge to patients and the screening pharmacist should request the patient's general practitioner review/continue supply of non-formulary medication. This request should be documented on the discharge summary by the screening pharmacist with the phrase:

"Therapy not supplied while at OUH – GP to restart/review on supply of next repeat prescription"

This communication of therapy suspension will encourage the de-prescribing of these items in line with recent NHSE guidance on Items which should not routinely be prescribed in primary care and Conditions for which over the counter items should not routinely be prescribed in primary care, as well as compliance with the OCCG Optimising Self Care by Appropriate use of Over the Counter Medicines clinical commissioning policy.

If you have any suggestions for a therapeutic substitution or therapy suspension please e-mail medicines.effectiveness@ouh.nhs.uk

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Therapeutic Substitution enables pharmacists to make changes to prescriptions, where the prescriber's intention is clear, without having to refer back to the prescriber. It also enables pharmacists to facilitate adherence to the agreed OUHFT Trust Formulary guidance.

LEVEL 1: SUBSTITUTIONS CAN BE ACTIONED BY A PHARMACIST SCREENING CHARTS IN THE DISPENSARY WITHOUT NEEDING TO REFER TO THE PATIENT'S MEDICAL NOTES.

Prescribed Medication	Substitutions / Prescription Change	Other Information
Acetazolamide 250mg MR *Capsules.*	Acetazolamide 250mg *tablets.* Where: 250mg MR BD ≡ 250mg QDS	For use during supply shortage of modified release capsules.
Adcal®-D3 *caplets* (calcium carbonate 750mg / colecalciferol 200units)	Adcal®-D_3 *tablets* (calcium carbonate 1.5g / colecalciferol 400units). Where: 2 caplets ≡ 1 tablet	Formulary compliance. N.B.: *licensed dose is "calcium carbonate 3g / colecalciferol 800units daily", however, if the patient is on half of this as (1 caplet bd), there might be a clinical reason; check.*
Alginate raft-forming oral suspension	Peptac liquid	Formulary compliance Dose as per BNF and BNFc *NB: Gaviscon infant sachets are on the formulary*
Amoxicillin Liquid	Amoxicillin Capsules	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage resolves – email from medicines effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance Liquid formulation should be reserved for use in patients under 2 years old.
Ampicillin capsules OR injection	Amoxicillin capsules OR injection Ensure tds dosing.	Formulary compliance. No need to confirm with Microbiology/Infectious Diseases.
Aspirin 75mg enteric coated tablets	Aspirin 75mg dispersible tablets	Formulary compliance. No proven clinical benefit.
Azithromycin Liquid	Azithromycin Capsules/Tablets	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage resolves – email from medicines

		effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance Liquid formulation should be reserved for use in patients under 2 years old.
Beclomethasone QVAR® inhaler	Equivalent daily dose as beclomethasone Clenil® inhaler. Where: QVAR® 100 micrograms ≡ Clenil® 200 micrograms	Formulary compliance. N.B.: *only applies to MDI. QVAR Autohaler® and Easi-breath® devices remain available.*
Calcichew® -D_3 (and Forte) tablets and all other calcium plus vitamin D brands	Adcal®-D_3 tablets (calcium carbonate 1.5g / colecalciferol 400units)	Brand substitution. Difference in vitamin D content not clinically significant. (1 x Calci-D ≡ 2 x Adcal D3)
Cefalexin Liquid	Cefalexin Capsules/Tablets	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage resolves – email from medicines effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance Liquid formulation should be reserved for use in patients under 2 years old.
~~Cimetidine 400mg tablets~~	~~Ranitidine 150mg tablets, *where:*~~ ~~400mg bd ≡ 150mg bd~~	~~Formulary compliance.~~ Currently shortage with ranitidine – cimetidine used in restricted indications within OUH during
Citalopram tablets	Equivalent dose as Cipramil® oral drops. *Where:* 10mg tablets ≡ 4 drops (8mg)	If patient unable to swallow tablets. Dose should be prescribed as drops. Reverse substitutions apply when patient able to swallow.
Clarithromycin Liquid	Clarithromycin Tablets	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage resolves – email from medicines effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance

		Liquid formulation should be reserved for use in patients under 2 years old.
Clotrimazole pessaries	Fluconazole 150mg capsules Stat dose (for vaginal candidiasis)	Formulary compliance. Clotrimazole pessaries are still 1st line in pregnancy. Caution: fluconazole interacts with many drugs. Check the BNF before making a substitution.
Co-amilofruse tablets	Amiloride and furosemide equivalent doses re-written separately.	Formulary compliance.
Co-amoxiclav 375mg (250/125mg) ONE tablet tds PLUS amoxicillin 250mg ONE capsule tds	Co-amoxiclav 625mg (500/125mg) ONE tablet tds	Formulary compliance.
Co-amoxiclav 375mg (250/125mg) ONE tablet tds*	Co-amoxiclav 250/62mg in 5ml suspension 5ml tds	*If patient unable to swallow tablets. NB: *for **enteral tubes**, dilute with an equal volume of water and shake before administration.* Reverse substitutions apply when patient able to swallow.
Co-amoxiclav 625mg (500/125mg) ONE tablet tds*	Co-amoxiclav 250/62mg in 5ml suspension 10ml tds	
Co-dydramol 10/500 (*or strength not specified)*	Co-codamol 8/500	Formulary compliance
Co-careldopa modified release or immediate release formulations OR Co-beneldopa modified release or immediate release formulatons	Co-beneldopa dispersible tablets Total daily levodopa dose (including all immediate and modified release doses), should be added up and then administered equally throughout the waking day.	If patient is unable to swallow and/or has a nasogastric tube in situ for medication administration. See MIL (Vol. 8, No. 8) for NBM/dysphagic in Parkinson's Disease
Co-dydramol 30/500	Equivalent daily dose as codeine phosphate 30mg tablets PLUS paracetamol 500mg tablets re-written separately. dihydrocodeine 30-40mg ≡ codeine 30mg	
Co-fluampicil	Flucloxacillin and amoxicillin equivalent doses re-written separately.	Formulary compliance. See Antimicrobials Guidelines for appropriate treatment options.
Co-codamol 30/500 mg tablets	Codeine phosphate 30mg tablets PLUS paracetamol 500mg tablets re-written separately.	Formulary compliance.
	Co-codamol 30/500mg	ONLY for enteral tube administration.

	effervescent tablets	Reverse substitutions apply when patient able to swallow.
Combivent® aerosol inhalation / nebuliser solution	Ipratropium bromide and salbutamol inhalers/nebules in equivalent doses re-written separately.	Formulary compliance.
Combivir® (zidovudine 300mg/lamivudine 150mg) ONE tablet bd	Zidovudine (50mg/5ml) oral solution *PLUS* Lamivudine (50mg/5ml) oral solution	Substitution to be used during the **pharmacy out of hours service ONLY** (only if liquids needed instead of tablets/capsules). Other sites: pharmacy will require to see the amended prescription prior to dispensing this medicines Contact the infectious diseases pharmacist the next working day (ext 25117). *NB:* during pharmacy opening hours, please contact the infectious diseases pharmacist
Kivexa® (abacavir 600mg/ lamivudine 300mg) ONE tablet od	Abacavir (100mg/5ml) oral solution *PLUS* Lamivudine (50mg/5ml) oral solution	
Rifinah® 150 (rifampicin 150mg/ isoniazid 100mg) THREE tablets od	Rifampicin (100mg/5ml) oral solution *PLUS* Isoniazid (50mg/5ml) oral solution	
Rifinah® 300 (rifampicin 300mg/ isoniazid 150mg) TWO tablets od		
Desloratadine 5mg tablets	Loratadine 10mg tablets	Desloratadine is active isomer of loratadine, no significant clinical advantage.
Diclofenac MR (modified-release) preparations **PRN**	Diclofenac standard-release tablets: 50mg tds prn	Inappropriate for acute use. (Please review prescription according to MHRA published advice of 24 October 2006 relating to the use of NSAIDs in high doses and for long-term)
Doxazosin MR (modified-release) tablets	Doxazosin standard-release tablets Re-written at same dose and frequency.	There is no need for a modified- release preparation as standard-release doxazosin is once daily.
Dutasteride 500micrograms capsule ONE od	Finasteride tablets: 5mg od	Formulary compliance
Erythromycin Liquid	Erythromycin Tablets	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage

		resolves – email from medicines effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance Liquid formulation should be reserved for use in patients under 2 years old.
Ferrous gluconate 300mg tablets (35mg iron/tablet)	Ferrous sulphate 200mg tablets (65mg iron/tablet) *OR* Ferrous fumarate 210mg tablets (68mg iron/tablet)	Formulary compliance.
	Ferrous fumarate 140mg in 5ml syrup (45mg iron in 5ml), where: 600mg od ≡ 7.5ml od 600mg bd ≡ 7.5ml bd 600mg tds ≡ 10ml bd	If patient unable to swallow tablets. Reverse substitutions apply when patient able to swallow.
Ferrograd® (ferrous sulphate mr) 325mg tablets (105mg iron/tablet) ONE tablet daily	Ferrous sulphate 200mg tablets (65mg iron/tablet) ONE tablet bd *OR* Ferrous fumarate 210mg tablets (68mg iron/tablet) ONE tablet bd	Formulary compliance
	Ferrous fumarate 140mg in 5ml syrup (45mg iron in 5ml), where: 200mg od ≡ 7.5ml od 200mg bd ≡ 7.5ml bd 200mg tds ≡ 10ml bd	If patient unable to swallow tablets. Reverse substitutions apply when patient able to swallow.
Fluticasone fluticasone propionate 50 micrograms/metered nasal spray	Mometasone furoate 50 micrograms/metered spray	Formulary compliance Dose as per BNF and BNFc
Gabapentin oral Liquid (Pain indications only)	Gabapentin capsules	Formulary compliance Capsules can be opened and dispersed in water for administration. On discharge, supply capsules and inform GP to switch back to liquid as appropriate.
Gliclazide 30mg MR (modified release) tablets	Gliclazide 80mg standard-release tablets. Suggested changes are: 30mg MR od ≡ 80mg od 60mg MR od ≡ 80mg bd 90mg MR od ≡ 120mg bd 120mg MR od ≡ 160mg bd NB: max. single dose is 160mg. Higher doses must be divided.	Formulary compliance. Final adjustment as per clinical response.
Gonadorelin analogues (goserelin,	Gonadorelin analogues (goserelin,	Formulary compliance.

leuprorelin and triptorelin) – 3 or 6 monthly injections.	leuprorelin and triptorelin) 1 monthly injection while inpatient (supply 1 injection per month only)	e.g., leuprorelin 11.25mg intramuscular injection every 3 months switch to leuprorelin 3.75mg intramuscular injection every 28 days. ***GP to restart 3 or 6 monthly injection 28 days after last dose of monthly injection received as inpatient. Ensure "next dose date" is clearly documented on the discharge letter***
Glycerol Suppositories	Glycerol Suppositories Most appropriate strength for age in line with BNF advice. For Child 1–11 months - 1 g For Child 1–11 years - 2 g For 12 years and above – 4g	Allow dosing as per BNF.
Haemophilus Influenzae type b vaccine and Neisseria group C vaccine	Menitorix® (combined preparation)	Formulary compliance as per the MIL: Preventing Severe Infection – Absent or Dysfunctional Spleen.
Hydrocortisone sodium phosphate 100mg	Hydrocortisone sodium succinate 100mg	Formulary compliance in case of stock issues
Hydrocortisone sodium succinate 100mg	Hydrocortisone sodium phosphate 100mg	Formulary compliance in case of stock issues
Hypromellose eye drops (all strengths)	Hypromellose 0.3% eye drops	Hypromellose 0.3% chosen formulary option at OUH. No significant therapeutic difference between preparations.
H2 receptor antagonist as pre-medication for paclitaxel in patients with breast, gynaecological, lung and urological cancers (as agreed with the individual MDTs) **As a pre-medication in chemotherapy regimens only**	Alternative H2 Receptor antagonist according to availability as below: **1st Choice:** Ranitidine 50mg IV 30 minutes prior to paclitaxel **OR** **2nd Choice**: Famotidine 40mg PO 2 hours prior to paclitaxel	Formulary compliance during times of shortages **Cimetidine interactions**: Do not substitute if patient is on theophylline, phenytoin or warfarin. Discuss with consultant. Other interactions via CYP inhibition pathway unlikely to be of clinical significance for stat dose. If no alternative available discuss with

	OR **3rd Choice**: Cimetidine 400mg PO 1 hour prior to paclitaxel on an empty stomach	clinical team and proceed without, ensure clearly documented and nursing team aware.
Ibuprofen Gel 10%	Ibuprofen Gel 5%	Formulary Compliance. No significant therapeutic difference between preparations.
Insulin Insuman Basal 100units/ml cartridges 3ml or pre-filled pen 3ml	Insulin Humulin I Kwikpen 100units/ml disposible pen 3ml	1 unit Insulin Insuman Basal = 1 unit Insulin Humulin I
Insulin Insuman Basal 100units/ml vial 5ml	Insulin Humulin I 100units/ml 10ml vial	1 unit Insulin Insuman Basal = 1 unit Insulin Humulin I
Isosorbide mononitrate MR (modified-release) tablets or capsules	Equivalent dose of the standard-release tablets at 8:00 and 14:00 (except in cases of nocturnal angina when dosing would be at 16:00 and 22:00). Where: 25-30mg MR od ≡ 10mg bd 40-60mg MR od ≡ 20mg bd 75-90mg MR od ≡ 30mg bd 100-120mg MR od ≡ 40mg bd	Formulary compliance.
Lactulose solution 3.1-3.7g/5ml	Laxido® (Macrogol 3350) ONE-TWO sachets bd	For **acute** constipation in the general adult patient. To be stopped on discharge by Pharmacist if no longer required. *Maximum of **4 days** supplied on discharge, GP not to continue*. See MIL: Management of Acute General Constipation. NB: *lactulose is still to be used by Gastroenterology for the management of liver failure.*
Lacri-Lube eye ointment	Xailin eye ointment	Formulary compliance.
Laxido® (Macrogol 3350) ONE-TWO sachets bd	Lactulose solution 3.1-3.7g/5ml 15mL bd	Formulary compliance during times of shortages NB: Lactulose Max dose for constipation is 45ml daily. Doses may exceed this in management/prevention of hepatic encephalopathy

Levocetirizine 5mg tablets	Cetirizine 10mg tablets	Levocetirizine is active isomer of cetirizine, no significant clinical advantage.
Metformin 500mg MR (modified-release) tablets (Glucophage® SR)	Metformin 500mg standard-release tablets, where: 500mg MR od ≡ 500mg od 1g MR od ≡ 500mg bd If the MR preparation is being given more frequently than od, then re-write it the as standard-release preparation at same dose and frequency.	Formulary compliance. Unless proven GI intolerance to standard release preparation (which should be documented in the allergies/intolerance box on the drug chart)
Movicol® (Macrogol 3350)	Laxido® (Macrogol 3350) Re-written at same dose and frequency.	Formulary compliance. Brand substitution.
Nitrofurantoin 100mg MR (modified-release) tablets	Nitrofurantoin 50mg standard-release tablets, where: 100mg MR bd ≡ 50mg qds	Formulary compliance.
Oxybutynin modified-release (M/R) preparations: 10mg and 5mg tablets	Oxybutynin immediate-release tablets: 2.5mg and 5mg tablets nearest equivalent daily dose in 2-3 divided doses 5mg M/R od ≡ 2.5mg bd 15mg M/R od ≡ 5mg tds	Formulary compliance. Consider restarting modified-release preparation if clinical effect of immediate release tablets does not last throughout the night
Perindopril arginine (Coversyl®)	Re-written as perindopril erbumine (also tert-butylamine), w*here:* - perindopril arginine 5mg ≡ perindopril erbumine 4mg	Formulary compliance. N.B.: *patients receiving Coversyl Plus® (perindopril arginine + indapamide) will be switched to:* *Perindopril erbumine PLUS indapamide*
Phenoxymethylpenicillin Liquid	Phenoxymethylpenicillin Tablets	Formulation switch for use during shortage of liquid. Reverse switch applies when shortage resolves – email from medicines effectiveness team when this has occurred. Tablets/capsules can be dispersed in water as per SPS guidance Liquid formulation should be reserved for use in patients under 2 years old.
Phenytoin capsules/tablets	Equivalent dose as phenytoin suspension where 100mg phenytoin sodium (capsules/tablets) ≡ 90mg of	If patient unable to swallow capsules/tablets. Reverse substitutions apply when patient able to swallow.

	phenytoin base (suspension).	***Not in Adult Critical Care (see endorsing guidelines).***
~~Phytomenadione oral liquid~~	~~Phytonadione tablets~~	~~For outpatients of the Oxford Haemophilia and Thrombosis Centre **only.**~~
Pramipexole modified release (MR) tablets	Immediate release (IR) pramipexole tablets Re-written at same total daily dose administered as tds. Eg: 1.05mg MR od ≡ 350 microgram tds	If patient is unable to swallow and/or has a feeding tube (e.g. nasogastric tube) in situ for medication administration. See MIL (Vol. 8, No. 8) for NBM/dysphagic in Parkinson's Disease for further information
Prednisolone enteric coated tablets	Prednisolone (plain) tablets Same dose	Formulary compliance. No proven clinical benefit.
Prednisolone soluble tablets	Prednisolone (plain) tablets Same dose	Formulary compliance. N.B.: *plain tablets can be crushed and dispersed in water for swallowing difficulties or paediatric patients.*
Proton-Pump Inhibitors (PPIs) other than omeprazole and lansoprazole capsules e.g. Esomeprazole, Rabeprazole sodium, pantoprazole	Omeprazole or lansoprazole capsules Please refer to NICE for equivalent doses.	Formulary compliance.
	Lansoprazole oro-dispersible tablets *OR* Omeprazole tablets Please refer to NICE for equivalent doses.	If patient unable to swallow capsules. Omeprazole tablets can be crushed and dispersed in water for oral administration in patients unable to swallow capsules. Lansoprazole orodispersible tablets can be dissolved in 10ml of water and administered via an 8Fr NG tube without blockage. For **paediatric patients** with an NG tube **smaller than 8Fr only**, omeprazole 20mg/10ml (extemporaneous preparation can be made by the Pharmacy Department) Reverse substitutions apply when patient able to swallow.
Pyridoxine 10mg tablet OD *OR* Pyridoxine 20mg tablet OD	Pyridoxine 50mg tablet OD **For adults patients only.**	For prophylaxis of isoniazid induced neuropathy. For use during supply shortage. For adults patients only.
Quinine sulphate 200mg tablet nocte *OR*	Quinine sulphate 300mg tablet ONE tablet *nocte*	Formulary compliance. Interaction with digoxin not clinically

Quinine bisulphate 300mg tablet nocte		significant
Quetiapine MR (modified-release) tablets	Quetiapine standard-release tablets Re-written at same daily dose administered as bd. Eg:50mg MR od ≡ 25mg bd	Formulary compliance.
Rifater® (rifampicin 120mg, isoniazid 50mg, pyrazinamide 300mg) tablets	If patient under 50kg: Rifinah® 150/100 3 tablets once a day + pyrazinamide 1.5g once a day If patient 50kg or more: Rifinah® 300/150 2 tablets once a day + pyrazinamide 2g once a day	Substitute separate tablets / capsules when there is a supply problem with combination
Rifinah® 300/150 2 tablets once a day	Rifampicin capsules 600mg once a day + isoniazid tablets 300mg once a day	Substitute separate tablets / capsules when there is a supply problem with combination
Rifinah® 150/100 3 tablets once a day	Rifampicin capsules 450mg once a day + isoniazid tablets 300mg once a day	Substitute separate tablets / capsules when there is a supply problem with combination
Ropinirole modified release (MR) tablets	Immediate release (IR) ropinirole tablets Re-written at same total daily dose administered as tds. Eg: 24mg MR od ≡ 8mg tds	If patient is unable to swallow and/or has a feeding tube (e.g. nasogastric tube) in situ for medication administration. See MIL (Vol. 8, No. 8) for NBM/dysphagic in Parkinson's Disease for further information
Timolol 0.5% (preserved) eye drops	Timolol 0.25% (preserved) eye drops	Formulary compliance. Timolol 0.25% has similar efficacy to timolol 0.5% but with decreased side effects. See glaucoma & ocular hypertension treatment guidelines
Timolol 0.5% & 0.25% preservative free unit dose eye drops	Timolol 0.1% unit dose eye gel preservative free (Tiopex®) Amend frequency to ONCE daily.	Formulary compliance. Timolol 0.1% has similar efficacy to timolol 0.5% but with decreased side effects. See glaucoma & ocular hypertension treatment guidelines
Tolterodine XL capsules 4mg	Tolterodine tablets 2mg bd	Formulary compliance in those where there is no documented intolerance to standard release

LEVEL 2: SUBSTITUTIONS REQUIRE KNOWLEDGE OF THE PATIENT OR ACCESS TO CLINICAL INFORMATION AND SO ARE ACTIONED AT WARD/CLINIC LEVEL ONLY.		
Prescribed Medication	**Substitutions / Prescription Change**	**Other Information**
Carbamazepine oral therapy	Carbamazepine suppositories. *Where:* 100mg oral preparation ≡ 125mg suppository Maximum of 250mg at any single dose and 1g daily.	If oral therapy temporarily not possible.* For short-term management of epilepsy only (max. 7 days). Final adjustment as per clinical response.
Ciprofloxacin 200-400mg bd intravenously	Ciprofloxacin 500mg bd orally	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Clarithromycin 500mg bd intravenously	Clarithromycin bd orally	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Clindamycin 600mg qds intravenously	Clindamycin 450mg tds orally	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Diclofenac (oral, rectal, IV) *(newly initiated for pain)*	Ibuprofen 200-400mg tds *OR* Naproxen 250mg-500mg bd NB: *diclofenac may be used in: A+E, Maternity and young healthy adults for short term analgesia.*	Do not substitute if the patient has already tried ibuprofen or naproxen and these have been unsuccessful or not tolerated. Diclofenac is associated with an increased risk of thrombo-embolic events even when used for short term in patients with no cardiovascular risk factors. This risk does not appear to be shared by low dose ibuprofen or naproxen. Use the lowest effective dose and for the shortest duration necessary to control symptoms. See MIL: NSAID Prescribing Key Points for chronic use for more information.
Digoxin tablets	Digoxin 50 micrograms/ml liquid Where: 62.5mcg tablet is equivalent to	For administration via NG tube or in swallowing difficulty. Reverse substitution when patient able

	50mcg elixir due to change in bioavailability.	to swallow. See MIL: Guidelines for Prescribing and Administering Digoxin in adults for more information.
Escitalopram 10mg tablets	Citalopram 20mg tablets	Escitalopram is active isomer of citalopram, no significant clinical advantage. Escitalopram is however licensed for generalised anxiety disorder (GAD) where citalopram is not. Therefore do not substitute this patients. Depression: substitute unless already failed on/intolerant of citalopram.
Oral Ferrous Fumarate/Sulphate ONE tablet BD/TDS (if not newly initiated for treatment of anaemia)	Oral Ferrous Fumarate/Sulphate ONE tablet OD	Patient compliance Multiple daily administration of oral iron tablets may reduce iron absorption and increase risk of side effects which could reduce patient compliance.
Fluconazole intravenously	Fluconazole orally – same dose	Switch to oral if the patient is taking other oral medication unless the intravenous route (only) is specifically recommended in the antimicrobial guidelines or by Microbiology / ID.
Nystatin 100,000 units in 1ml suspension 1ml (100 000units) QDS until symptom control for oral thrush in a patient with suspected or confirmed COVD-19 diagnosis who cannot self-administer nystatin suspension.	Fluconazole 50mg capsules 50mg once daily for 7 days.	Alternative as per Antimicrobial Guidelines for oral candidiasis. Reduces frequency of administration. Confirm allergies and interactions (e.g. drugs that prolong QT interval and CYP3A4 substrates, including RECOVERY trial drugs) prior to switch. Avoid fluconazole in pregnancy.
Incorrect insulin device	Change to the patients usual insulin device where clinically appropriate and the device is available on the formulary. For Example • Insulin Lantus 100units/ml VIAL prescribed • Patient usually uses a prefilled-pen • Change prescription to: Insulin Lantus 100units/ml DISPOSIBLE (Solostar) PEN	Changes are limited to the device only. All changes to doses must be made by the prescriber.

Incorrect inhaler device	Change to the patients usual inhaler device where clinically appropriate and the device is available on the formulary. For Example • Salbutamol 100micrograms/ metered dry powder inhalation prescribed • Patient usually uses an aerosol inhaler • Change prescription to: Salbutamol 100 micrograms/ metered inhalation CFC free aerosol inhaler	Changes are limited to device only. All changes to doses must be made by the prescriber.
Metronidazole 500mg tds intravenously	Metronidazole 400mg tds orally	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Moxifloxacin 400mg od intravenously	Moxifloxacin 400mg od orally	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Paracetamol 1g QDS IV/PO in adults weighing: **Less than 40kg**	Appropriate dose of paracetamol based on weight: 500mg QDS	In severe renal insufficiency (creatinine clearance less than 30 mL/min), increase the minimum interval between each administration to 6 hours
Paracetamol 1g QDS IV/PO in adults weighing: **40kg to 50kg**	Appropriate dose of paracetamol based on weight: 1g TDS	In severe renal insufficiency (creatinine clearance less than 30 mL/min), increase the minimum interval between each administration to 6 hours
Paracetamol IV co-prescribed with PO and PR (PO/IV/PR)	Cross-off the IV/PR routes if it is clear that PO/enteral route is being used for other medication	Paracetamol IV and PR are considerably more expensive than oral therapy. Paracetamol IV PRN prescriptions are usually inappropriate – if the patient is in acute pain, a stat dose can be prescribed when appropriate. N.B.: *Paracetamol IV must be reviewed every 24h.*

Paracetamol PR and/or IV route are prescribed	Re-written as PO/enteral route when it is clear that this route is being used for other medication	
Paracetamol IV **PRN**	All paracetamol IV PRN re-written as *paracetamol PO 1g qds PRN* if it is clear that the PO/enteral route is being used for other medication	
Rifampicin intravenously	Rifampicin orally – same dose	Switch to oral if the patient is taking other oral medication unless the intravenous route only is specifically recommended in the Antimicrobial Guidelines or by Microbiology / Infectious Diseases.
Rosuvastatin	Equivalent dose of simvastatin (or atorvastatin if simvastatin is not tolerated or ineffective) Rosuvastatin 5mg ≡ Simvastatin 40mg Rosuvastatin 5mg ≡ Atorvastatin 20mg	Formulary compliance Do not substitute rosuvastatin until the reason for receiving it in preference to any other statin has been established.

Therapy Suspension enables pharmacists to suspend prescriptions for non-urgent medication, without having to refer back to the prescriber. It also enables pharmacists to facilitate adherence to the agreed OUHFT Trust Formulary guidance.		
Prescribed Medication and indication	**Reason for Suspension**	**Other Information**
Adcal®-D3	Not clinically important to continue during severe acute admission as benefit of treatment does not outweigh risk to nursing staff whilst infectious.	To be suspended whilst infectious. Restart prescription once patient is discharged or no longer infectious.
Alendronic Acid Dysphagic patients or patients unable to adhere to administration instructions Or When prescribed for a patient with suspected or confirmed COVID-19 diagnosis	Increased risk of oesophageal/gastric ulcer if patients unable to administer as per manufacturer's directions Not clinically critical to continue during acute admission.	Restart prescription once patient has been deemed to have a "safe swallow" and ensure patient is counselled on how to administer oral bisphosphonates To be suspended whilst infectious. Restart prescription once patient is discharged or no longer infectious.
Atorvastatin When prescribed concomitantly with potent inhibitors of CYP3A4 Or When prescribed for a patient with suspected or confirmed COVID-19 diagnosis	Increased risk of myopathy and rhabdomyolysis due to increased exposure to statin Not clinically critical to continue during acute admission.	To be suspended when concomitant administration of atorvastatin and a short course of potent CYP3A4 inhibitors only (e.g acute course of macrolide). Restart prescription once potent inhibitor course has completed. For long term use of potent CYP3A4 inhibitors concomitantly with atorvastatin - consider reducing dose of atorvastatin.
Colecalciferol (prophylaxis of deficiency)	Non-formulary at OUH and not clinically important to continue during acute admission	
Chondroitin Osteoarthritis	Product of low clinical effectiveness, where there is a lack of robust evidence of clinical effectiveness or there are significant safety concerns	
Cyanocobalamin (prophylaxis of deficiency)	Non-formulary at OUHFT and not clinically important to continue during acute admission	
Estradiol vaginal tablets	Non-formulary at OUHFT and not	

	clinically important to continue during acute admission	
Ferrous sulfate or ferrous fumarate as prophylactic oral iron supplementation	Benefit of treatment does not outweigh risk to nursing staff whilst infectious.	Restart prescription once patient is discharged or no longer infectious. For treatment of symptomatic iron deficiency follow Intravenous Iron Replacement MIL.
Fibrates e.g., fenofibrate, bezafibrate, gemfibrozil	Benefit of treatment does not outweigh risk to nursing staff whilst infectious.	To be suspended whilst infectious. Restart prescription once patient is discharged or no longer infectious.
Glucosamine Osteoarthritis	Mechanism of action is not understood and there is limited evidence to show it is effective	See NICE CG177:Osteoarthritis care and management
Herbal treatments	Products of low clinical effectiveness, where there is a lack of robust evidence of clinical effectiveness or there are significant safety concerns.	
Homeopathic Remedies	Products of low clinical effectiveness, where there is a lack of robust evidence of clinical effectiveness or there are significant safety concerns.	See Specialist Pharmacy Service guidance on homeopathic remedies here.
Ibandronic Acid Dysphagic patients or patients unable to adhere to administration instructions	Increased risk of oesophageal/gastric ulcer if patients unable to administer as per manufacturer's directions	Restart prescription once patient has been deemed to have a "safe swallow" and ensure patient is counselled on how to administer oral bisphosphonates
Methotrexate	Contraindicated in active infection.	Consult with specialist when appropriate to restart/ Restart when infection has subsided.
Multivitamin for prophylaxis of deficiency (not for refeeding syndrome)	Not clinically important to continue during acute admission as benefit of treatment does not outweigh risk to nursing staff whilst infectious.	To be suspended whilst infectious. Restart prescription once patient is discharged or no longer infectious.
Olive oil capsules (Supplementation)	Products of low clinical effectiveness, where there is a lack of robust evidence of clinical effectiveness	
Omega 3 fatty acids	Products of low clinical effectiveness, where there is a lack of robust evidence of clinical effectiveness	
Orlistat Obesity	Not appropriate for supply by OUH	

Pravastatin When prescribed concomitantly with macrolides Or When prescribed for a patient with suspected or confirmed COVID-19 diagnosis	Increased risk of myopathy and rhabdomyolysis due to increased exposure to statin Not clinically critical to continue during acute admission.	To be suspended when concomitant administration of pravastatin and a short course of macrolides only. Restart prescription once macrolide course has completed. For long term use of macrolide concomitantly with pravastatin consider reducing dose of pravastatin.
Risedronate Dysphagic patients or patients unable to adhere to administration instructions Or When prescribed for a patient with suspected or confirmed COVID-19 diagnosis	Increased risk of oesophageal/gastric ulcer if patients unable to administer as per manufacturer's directions Not clinically critical to continue during acute admission.	Restart prescription once patient has been deemed to have a "safe swallow" and ensure patient is counselled on how to administer oral bisphosphonates To be suspended whilst infectious. Restart prescription once patient is discharged or no longer infectious.
Sildenafil (Erectile dysfunction)	Not appropriate for use in OUH	
Simvastatin When prescribed concomitantly with potent inhibitors of CYP3A4 or When prescribed for a patient with suspected or confirmed COVID-19 diagnosis	Increased risk of myopathy and rhabdomyolysis due to increased exposure to statin Not clinically critical to continue during acute admission.	To be suspended when concomitant administration of simvastatin and a short course of potent CYP3A4 inhibitors only (e.g acute course of macrolide). Restart prescription once potent inhibitor course has completed. For long term use of potent CYP3A4 inhibitors concomitantly with simvastatin consider switching to an alternate statin at a reduced dose.
Tadalafil (Erectile dysfunction)	Not appropriate for use in OUH	