

Guidelines on Prescribing Responsibility for “**RED / AMBER / GREEN MEDICINES**” (Commonly known as the ‘**RAG**’ list)

This RAG list is intended for use in conjunction with the agreed joint Pan Mersey formulary, to ensure that the level of patient care and monitoring required for use of the drug is not compromised.

If a drug is not on this list, please refer to the Pan Mersey Formulary www.formulary.panmerseyapc.nhs.uk for further information.

Safe patient care requires a clear understanding of GP and Consultant responsibilities for clinical monitoring and prescribing. When responsibility for specified aspects of patient care is transferred from hospital, the GP should have full confidence to prescribe the necessary medicines. This requires the **sharing of sufficient information** with the GP and a **mutual agreement** to the transfer of care.

Where ‘Consultant’ is referred to, this applies to Acute Trusts and specialists from other services commissioned by Wirral Clinical Commissioning Group.

These are not rigid guidelines. Consultants and GPs can discuss the appropriate management of individual patients personally and on occasion Consultants and GPs may agree to work outside this guidance.

Key to recommendations

RED Drugs which should be prescribed only by a specialist clinician.

Amber medicines are considered suitable for primary care prescribing following varied levels of specialist input.

AMBER Recommended requires specialist assessment and recommendation to GP to prescribe in Primary Care.

AMBER Initiated requires specialist initiation of prescribing. Prescribing to be continued by the specialist until stabilisation of the dose and the patient’s condition is achieved and the patient has been reviewed by the specialist.

AMBER Patient Retained requires specialist initiation of prescribing. Prescribing to be continued by specialist until stabilisation of the dose and the patient’s condition is achieved and the patient had been reviewed by the specialist. Patient remains under the care of specialist (i.e. not discharged) as occasional specialist input may be required.

PURPLE Medicines are considered suitable for Primary Care prescribing and/or management, following specialist initiation of therapy, with on-going communication between the Primary Care prescriber and specialist, within the framework of a Shared Care Agreement.

GREY These medicines are still being evaluated according to local processes and a decision on whether to commission their use has not yet been made. They should not be prescribed in any setting.

BLACK Medicines not recommended for use because of lack of evidence of clinical effectiveness, cost prioritisation or concerns over safety.

GREEN Medicines for which primary care prescribers would normally take full responsibility for prescribing and monitoring. Green status does not imply that a medicine is superior to existing first-line drugs or is a recommended formulary choice.

BNF Chapter 1. Gastro-Intestinal System

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Azathioprine	Inflammatory Bowel Disease	PURPLE	Y
Ciclosporin	Inflammatory Bowel Disease	PURPLE	Y
Omnipaque	For use as a laxative and faecal tagging agent prior to CT colonoscopy. Use will be evaluated.	RED	-
Pentoxifylline	Severe alcoholic hepatitis (max 6 weeks use). Non formulary for other indications. BLACK on Pan Mersey for all indications	RED BLACK	-
Prucalopride	Chronic constipation in women	AMBER RECOMMENDED	
Sulfasalazine	Inflammatory Bowel Disease	PURPLE	Y
Ursodeoxycholic acid	Primary biliary cholangitis Dissolution of gallstones Hepatobiliary disorders associated with cystic fibrosis in children aged 6-18 years Total parenteral nutrition (TPN) - induced cholestasis in children (off label use) https://www.panmerseyapc.nhs.uk/media/2357/ursodeoxycholic_support.pdf?UNLID=18834955820203612128	AMBER RETAINED	Y (Prescribing Support Statement)

BNF Chapter 2. Cardiovascular System

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Ajmaline	To be used as a single IV infusion under cardiac monitoring for the diagnosis of Brugada Syndrome. Consultant Cardiologist use only	RED	-
Apixaban	For Atrial Fibrillation. Prescribing needs to be in line with NICE TA 275. Guidelines and initiation checklist can be found at: http://mm.wirral.nhs.uk/guidelines/ It is good practice for the initiation checklist to be completed by the initiating GP in primary care before commencing treatment. For the treatment and secondary prevention of Deep Vein Thrombosis and / or Pulmonary Embolism. Prescribing needs to be in line with NICE TA 341.	GREEN	-

	It is expected that patients should have had initial diagnosis by the DVT service or specialist clinician.		
Dabigatran	<p>For Atrial Fibrillation. Prescribing needs to be in line with NICE TA 249. Guidelines and initiation checklist can be found at: http://mm.wirral.nhs.uk/guidelines/ It is good practice for the initiation checklist to be completed by the initiating GP in primary care before commencing treatment.</p> <p>For the treatment and secondary prevention of deep vein thrombosis and/or pulmonary embolism. Prescribing needs to be in line with NICE TA 327. It is expected that patients should have had initial diagnosis by the DVT service or specialist clinician.</p>	GREEN	-
Edoxaban	<p>For Atrial Fibrillation. Prescribing needs to be in line with NICE TA 355. Guidelines can be found at: http://mm.wirral.nhs.uk/guidelines/. It is good practice for the initiation checklist to be completed by the initiating GP in primary care before commencing treatment.</p> <p>For the treatment and secondary prevention of deep vein thrombosis and/or pulmonary embolism. Prescribing needs to be in line with NICE TA 354. It is expected that patients should have had initial diagnosis by the DVT service or specialist clinician.</p>	GREEN	
Metolazone (unlicensed)	<p>Metolazone is approved for use alone or in combination with a Loop diuretic by cardiologists or community heart failure clinics, as a second line agent for heart failure patients that do not respond to bendroflumethiazide. It may only be recommended by the community heart failure clinics to prevent an admission to hospital or for palliation. It is also approved for use within the renal directorate for fluid management in patients with CKD.</p>	AMBER	Y Wirral Shared Care Agreement for CKD and HF

	Initiation / recommendation by consultant nephrologist.		
Nicardipine infusion	Approved for the treatment of hypertensive crisis in critical care and Acute Stroke Unit.	RED	
Prasugrel	Only approved for loading dose to be given by WUTH A/E prior to immediate percutaneous coronary intervention to treat an ST-segment elevation myocardial infarction in Liverpool Heart and Chest Hospital (LHCH).	RED	-
Rivaroxaban, Apixaban, dabigatran	For VTE prophylaxis post elective hip and knee replacement surgery in line with NICE TA 170 (N.B. Rivaroxaban is the first line agent).	RED	-
Rivaroxaban	For Atrial Fibrillation. Prescribing needs to be in line with NICE TA 256. Guidelines and initiation checklist can be found at: http://mm.wirral.nhs.uk/guidelines/ It is good practice for the initiation checklist to be completed by the initiating GP in primary care before commencing treatment. For the treatment and secondary prevention of deep vein thrombosis and/or pulmonary embolism, Prescribing needs to be in line with NICE TA 261 and 287. It is expected that patients should have had initial diagnosis by the DVT service or specialist clinician.	GREEN	-

BNF Chapter 3. Respiratory System

Please note: All combination inhalers are listed by Brand Name in line with National Guidance

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Antibiotics nebulised: colistimethate sodium, tobramycin	Colistin – Cystic Fibrosis (NHSE Commissioned indication) and Bronchiectasis For bronchiectasis – specialist prescribes 4 weeks of treatment before transferring prescribing to the GP.	AMBER Retained	Y Pan Mersey Prescribing Support Statement
Dornase Alfa	Cystic Fibrosis – NHSE Commissioned Drug.	RED	N

Sodium chloride 7% nebuliser solution	Cystic Fibrosis	AMBER RECOMMENDED	-
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BNF Chapter 4. Central Nervous System

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Acamprosate	Maintaining abstinence in alcohol-dependent patients	AMBER Recommended	N
Atomoxetine	ADHD	AMBER	Y for children and adults (CWP Shared Care Agreement. Currently under review)
Antipsychotic depot injections	Schizophrenia / psychosis	RED for new patients only AMBER for existing patients	N
Diamorphine intranasal spray	Approved pending successful resolution of the operational aspects of the introduction of this medicine.	RED	
Dementia drugs: donepezil, galantamine, memantine, rivastigmine	Dementia (under LES)	AMBER Initiated	Y Pan Mersey Prescribing Support Statement
Duloxetine	Depression only	GREEN	N
	For neuropathic pain	GREEN	-
Ketamine (oral)	To be used as an analgesic agent for patients with severe pain who are opioid tolerant, where opioid analgesics are ineffective or are contraindicated, or in acute neuropathic pain states. Only to be commenced on the recommendation of the acute pain team.	RED	
Lithium	Mania, bipolar disorder, recurrent depression	AMBER RED	Y (CWP Shared Care Policy)

	Paediatrics – all prescribing to be retained by specialist.		N
Lisdexamphetamine Paediatrics	ADHD. Use would be second line for children who have had ineffective treatment on methylphenidate. Either use atomoxetine or lisdexamphetamine at this point. Lisdexamphetamine to be used when there has been a response to methylphenidate but the response is inadequate at maximal doses. Atomoxetine to be used when there has been no response to methylphenidate or unacceptable side effects.	AMBER	Y (CWP Shared Care)
Lisdexamphetamine Adults	ADHD. For adult patients who require less than 12 hours symptom control methylphenidate would be first line. For adult patients who require greater than 12 hours symptom control lisdexamphetamine would be first line. For adults who have had ineffective treatment on methylphenidate use lisdexamfetamine.	AMBER	Y (CWP Shared Care for Adults. Currently Under Review)
Melatonin (Unlicensed)	Unlicensed formulation For children with neurological or neurodevelopmental disorders suffering from severe sleep disturbances. This is classified as AMBER only if being used for those patients with a feeding tube that is so narrow that it is blocked by Circadin® tablets.	RED AMBER Retained	Y – for children (Wirral only)
Melatonin (Circadin®)	Licensed formulation Circadin® available for off label use for treatment of children with neurological or neurodevelopmental disorders suffering from severe sleep disturbances under shared care agreement.	AMBER	Y – for children (Wirral only)
Methylphenidate	ADHD in children <i>Note: additional shared care agreement in place between CWP and Wirral CCG</i>	AMBER	Y (CWP Shared Care Agreement)
Nalmefene	Reducing alcohol consumption in people with alcohol dependence. In line with NICE technology appraisal guidance 325, prescribing of nalmefene requires continuous psychosocial support around alcohol dependency as a pre-requisite.	RED	N

	Therefore, prescribing is currently by a specialist https://www.panmerseyapc.nhs.uk/media/2314/nalmefene_alcohol.pdf		
Riluzole	Amyotrophic lateral sclerosis (MND). Treatment should be initiated by a specialist in MND but it can then be supervised under a shared-care arrangement involving the general practitioner. https://www.panmerseyapc.nhs.uk/media/1540/riluzole.pdf	PURPLE	Y

BNF Chapter 5. Infections

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Antibiotics IV	Provided there are specific arrangements or service in place that allow this	AMBER RECOMMENDED	N
Anti-HIV treatments	HIV	RED	-
IV Antifungals including amphotericin, caspofungin and voriconazole	Amphotericin – severe fungal infections Caspofungin – invasive fungal infections (replaced by micafungin except for haematology). Voriconazole – severe fungal infections Micafungin – now first line agent to replace caspofungin and approved for all specialities except haematology.	RED	
Ciprofloxacin ear drops (Cetraxal®)	Acute otitis externa	GREEN	
Dalbavancin	Approved as an alternative to teicoplanin in acute bacterial skin and skin structure infections (ABSSSI) in adults. Only to be prescribed on the recommendation of a Consultant Medical Microbiologist	RED	-
Dapsone	Dermatitis herpetiformis	PURPLE	Y
Isavuconazole	Approved for use as an alternative to voriconazole for the treatment of invasive aspergillosis or mucormycosis where amphotericin B is inappropriate due to adverse effects or drug interactions	RED	-
Linezolid	Secondary care prescribing only on Consultant Microbiologist advice	RED	-

Palivizumab	Respiratory Syncytial Virus	RED	-
Pivmecillinam	Approved for use in patients with uncomplicated cystitis after GPs have checked culture and sensitivity advice. Medical Microbiologist advice should be sought before prescribing pivmecillinam if there is any uncertainty over its use and pivmecillinam should only be considered if first and second line agents for uncomplicated UTI in adult women and UTI in men are considered unsuitable.	GREEN	N
Ribavirin	Hepatitis C & Respiratory Syncytial Virus	RED	-
Voractiv (Rifampacin 150mg/ Isoniazid 75mg/ Pyrazinamide 400mg/ Ethambutol 275mg)	For the initial phase treatment of tuberculosis	RED	-
Zerbaxa® (ceftolozane and tazobactam) infusion	Approved for the treatment of pseudomonas and multi-drug resistant Gram-negative infections (excluding CPE) on the recommendation of a Consultant Medical Microbiologist where other options are not appropriate or have failed.	RED	-
Zavicefta® (ceftazidime/avibactam)	Approved for the treatment of CPE infections caused by the OXA-48 and KPC strain and to treat infections caused by multi-drug resistant Gram-negative organisms. Only on the recommendation of a Consultant Medical Microbiologist where other options are not appropriate or have failed.	RED	-

BNF Chapter 6. Endocrine System

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Bisphosphonates IV	Osteoporosis – zoledronic acid Pagets disease of the bone – disodium pamidronate & zoledronic acid Hypercalcaemia – disodium pamidronate & zoledronic acid (only patients with myeloma)	RED	-
Cabergoline	Prevention of ovarian hyperstimulation syndrome Hyperprolactinaemia	RED AMBER RETAINED	

Denosumab	Treatment of postmenopausal osteoporosis in women and in men at increased risk of fractures, and bone loss associated with hormone ablation in men with prostate cancer at increased risk of fractures. The first dose will be administered in secondary care.	AMBER INITIATED	
Fertility Drugs (menotrophin and cetorelix)	Approved for use.	RED	-
GnRH analogue buserelin	Pituitary desensitisation before induction of ovulation by gonadotrophins for in vitro fertilisation	RED	
GnRH analogues goserelin, triptorelin, leuporelin	Endometriosis Endometrial thinning Uterine fibroids	AMBER RETAINED	Y Prescribing Support Statement
Growth hormone adults	Deficiency of growth hormone as per NICE guidance	RED	-
Growth hormone children	Deficiency of growth hormone as per NICE guidance	RED	N
Hydrocortisone granules 0.5mg, 1mg, 2mg and 5mg (<i>Alkindi</i> [®])	Adrenal insufficiency. Licensed formulation for use instead of unlicensed "special" (unlicensed "special" to be retained for children requiring dose increments <0.5mg).	AMBER INITIATED	N
In Vitro Fertilisation (IVF) and oral sub fertility treatment	IVF	RED	-

BNF Chapter 7. Obstetrics, Gynaecology and Urinary-Tract Disorders

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
As Per Pan Mersey Guidelines			

BNF Chapter 8. Malignant Disease and Immunosuppression

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Anti-cancer therapy for malignant disease (not including hormonal treatments)	Systemic chemotherapy including oral anticancer therapy for malignant disease. Intracavitary cytotoxic chemotherapy.	RED	-
Azathioprine	Suppression of transplant rejection	RED	N
Bortezomib	This was approved in combination with dexamethasone, or with dexamethasone and thalidomide, for the induction treatment of adults with	RED	

	previously untreated multiple myeloma, who are eligible for high-dose chemotherapy with haematopoietic stem cell transplantation (NICE TA 311).		
Bortezomib	For treating adults with previously untreated mantle cell lymphoma for whom haematopoietic stem cell transplantation is unsuitable (NICE TA370)	RED	
Bosutinib	Approved for use in previously treated chronic, accelerated and blast phase Philadelphia chromosome positive chronic myeloid leukaemia as per NICE TA401	RED	N
Brentuximab	Approved for treating CD30-positive Hodgkin lymphoma as per NICE 446	RED	-
Ciclosporin	Organ transplantation, Bone marrow transplantation, Nephrotic Syndrome	AMBER retained for current patients RED for new patients	N
Degarelix (gonadotrophin releasing hormone antagonist)	Degarelix is recommended as an option for treating advanced hormone-dependent prostate cancer in people with spinal metastases as per NICE TA404.	AMBER RETAINED	N
GnRH analogues goserelin, triptorelin, leuporelin	Prostate cancer Triptorelin (Decapeptyl® SR 3mg, 11.25mg and 22.5mg) is first choice gonadorelin analogue for prostate cancer following specialist urologist/oncologist recommendation under shared care agreement. See also: https://www.panmerseyapc.nhs.uk/media/1600/triptorelin_201803_ps46_v0402.pdf	AMBER RETAINED	Y Prescribing Support Statement
Mycophenolate	Prophylaxis organ rejection NHSE Commissioned for Transplant rejection	RED	N
Sirolimus	Prophylaxis of organ rejection NHSE Commissioned for Transplant rejection	RED	N
Tacrolimus	Prophylaxis of organ rejection NHSE Commissioned for Transplant rejection	RED	N

BNF Chapter 9. Nutrition and Blood

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Bisphosphonates IV	Hypercalcaemia	RED	-

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Paricalcitol	Secondary hyperparathyroidism	RED	-
Subcutaneous fluids	Palliative care only	AMBER RECOMMEND ED	N
Succinylated gelatine 4% (Isoplex®)	Isoplex® is a balanced electrolyte solution that contains less chloride and causes less hyperchloraemic acidosis than other fluids. It will replace Gelofusine® and Volulyte® for the initial management of hypovolaemic shock throughout WUTH.	RED	

BNF Chapter 10. Musculoskeletal and Joint Diseases

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Disease Modifying Anti-Rheumatic Drugs (DMARDS)	Rheumatoid Arthritis and other rheumatological diseases.	PURPLE	Y: Azathioprine Ciclosporin Leflunomide Methotrexate oral & sc Mycophenolate Sulfasalazine

BNF Chapter 11. Eye

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Levofloxacin 0.5% eye drops	Approved for the following indications: 1. First line for bacterial keratitis/contact lens associated bacterial keratitis and 2. As part of the post-operative presumed bacterial endophthalmitis treatment regime	RED	-
Mydrasert® ophthalmic implant (phenylephrine hydrochloride and tropicamide)	Approved for insertion into the eye prior to ophthalmologic procedures to cause mydriasis.	RED	-
Natamycin 5% eye drops (unlicensed preparation)	Approved as first line for fungal keratitis for lesions confined to the superficial layers of the cornea.	RED	-
Polyhexamethylene biguanide (PHMB) 0.02% eye drops (unlicensed preparation)	Approved as first line for acanthamoeba keratitis usually in contact lens wearers	RED	-

BNF Chapter 12. Ear, Nose and Oropharynx

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Pilocarpine tablets	For dry mouth caused by irradiation for head and neck cancers and Sjogren's syndrome	AMBER RECOMMENDED	N

BNF Chapter 13. Skin

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Actikerall	Approved for the treatment of actinic keratosis	GREEN	-
Betamethasone medicated plaster (Betesil®)	Chronic lichenified eczema. To be recommended by dermatology consultants or GPs with a special interest in dermatology	AMBER RECOMMENDED	N
Ciclosporin	Psoriasis	PURPLE	Y
Methotrexate oral and SC	Psoriasis	PURPLE	Y

BNF Chapter 14. Immunological Products and Vaccines

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Immunoglobulin IV infusion		RED	-
Tacrolimus (Protopic®)	Moderate to severe atopic eczema in adults and children aged 2 years and older that has not been controlled by topical corticosteroids as per NICE TA82	AMBER Recommended	N

BNF Chapter 15. Anaesthesia

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
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Miscellaneous

Drug	Agreed Formulary Indications	Status	Shared Care Guidelines
Acid Citrate Dextrose Solution	Approved for use (instead of heparin) as anticoagulant in cell salvage with apheresis devices.	RED	-
CAPD fluids	Dialysis	RED	-
IV infusions	Provided there are specific arrangements or service in place that allow this	RED	
Plasma-Lyte 148 in glucose 5% IV fluid.	Approved for use within the Children's directorate as the standard maintenance IV solution (to replace sodium chloride 0.45% in glucose 5% with potassium chloride 0.15%).	RED	-
Taurolock Urokinase LineLock, (cyclo)-taurolidine, citrate (4%), heparin 500units/mL	Approved for <u>treatment</u> and subsequent prophylaxis of central venous catheter thrombosis and prophylaxis of catheter related blockages in dialysis patients	RED	-
Taurolock Hep500 LineLock, (cyclo)-taurolidine, citrate (4%), heparin 500units/mL	Approved for the prophylaxis of central venous catheter thrombosis and catheter related blockages	RED	-

IMPORTANT ADDITIONAL INFORMATION

- The most current list is available at <http://mm.wirral.nhs.uk/sharedcare/>
- This guidance is based on NICE recommendations and the earlier EL(91)127 "Responsibility for Prescribing between Hospitals and GPs".
- These lists of therapies are not exclusive – suggestions are welcome
- It is intended that, over time, medicines would not be listed as individual products, but would be covered by the general principles at the beginning of the Tables.
- This guidance reflects historical and current practice. It is acknowledged that this will lead to some apparent anomalies.

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- For further information, or feedback on content, please contact the ML CSU Medicines Management Team or your Acute / Mental Health Trust Chief Pharmacist.