

Bath Clinical Area Partnership Prescribing and Therapeutics Committee (BCAP PTC)

Summary of Shared Care Guidelines

And

Monitoring of Disease Modifying Drugs (DMARDs) September 2015 Updated Jan 2018 Final March 2018

Rheumatology & Dermatology & Gastroenterology

<http://www.bcapformulary.nhs.uk/>

See also [RNHRD Website for specific details relating to each drug including interactions](#)

Based on The British Society for Rheumatology Guidance /BHPR Non-Biologic DMARD
Guidance 2017

See also [Summary of Product Characteristics](#) or [BNF for additional Information](#)

General Information

Disease Modifying Anti-Rheumatic drugs (DMARDs) are added at increasingly early stages in the treatment of rheumatoid arthritis (RA) to suppress the processes responsible for the chronic inflammation of RA, they may be used either as mono-therapy or in combination. DMARDs are also used for the treatment of other rheumatology conditions (e.g. connective tissue disorders and vasculitis) and in other specialities, including dermatology, respiratory medicine and gastroenterology.

A number of these drugs are recommended for prescribing in unlicensed indications. All recommendations are based on the practice of a responsible body of peers of similar professional standing (e.g. The British Society for Rheumatology; see References for full details). Prescribers are advised to discuss with the patient if the medicine is used out of license and document this agreement in the patient's medical record.

These shared care guidelines outline suggested ways in which the responsibilities for managing the prescribing of DMARDs can be shared between the specialist and general practitioner in primary care.

DMARDs should be initiated by hospital specialists only and should not be initiated in the Primary Care setting. GPs are invited to prescribe DMARDs and participate in shared care in accordance to the written instructions given by the Acute Trust Specialists once the patient has reached a stable dose.

If the GP is not confident to undertake these roles, then the total clinical responsibility for the patient for the diagnosed condition remains with the specialist. **If a specialist asks the GP to prescribe drugs for this treatment, the GP should reply to this request as soon as practicable.** The intention to share care should be explained to the patient by the doctor initiating treatment. It is important that patients are consulted about treatment and are in agreement with it. The doctor who prescribes the medication legally assumes clinical responsibility for the drug and the consequences of its use.

Please consult the manufacturer's Summary of Product Characteristics (SPC) (www.medicines.org.uk) and the current BNF for full prescribing information on contraindications, side-effects and interactions.

Pre pregnancy and pregnancy advice

If the patient is pregnant or is thinking of becoming pregnant (in relation to both maternal and paternal patients) then advice should be sought from the originating prescriber. Further information can also be obtained from Medicines Information at Royal United Hospital

(RUH Medicines Information telephone: 01225 824633) or Patient Information Helpline http://www.ruh.nhs.uk/patients/medicines_helpline/index.asp

Rheumatology

Rheumatology Advice Line for patients		01225 428823
GP queries help line (11am -1pm Mon-Fri)		07747 630875
GP queries - Out of Hours		Via switch board 01225 465941
Debbie Bond, Lead Biologics Nurse	Debbiebond@nhs.net	01225 473408
Nicola Waldron, Rheumatology Specialist Nurse (Lead for PsA biologics)	nwaldron@nhs.net	01225 478483
Julia James, Associate Specialist Nurse	Juliajames2@nhs.net	0125 465941 x358
Sarah Cole, Associate Specialist Nurse (CTDs)	Sarah.smith146@nhs.net	01225 473483

Dermatology: Phone: 01225 826223 01225 826225 01225 826374

Dr Cari Aplin	Consultant Dermatologist	01225 826223	carolyn.aplin@nhs.net
Dr S Woodrow	Consultant Dermatologist		Sarah.woodrow@nhs.net
Dr D Buckley	Consultant Dermatologist		Deidre.buckley@nhs.net
Dr W Phillips	Consultant Dermatologist	01225 824525	wphillips@nhs.net
Dr I Mauri-Sole	Associate Specialist		Inma.mauri-sole@nhs.net
Dr C Lovell	Consultant Dermatologist	01225 824524	Christopher.lovell@nhs.net
Dr Paola de Mozzi	Consultant Dermatologist – Biologics Lead		Paolademozzi@nhs.net
Rose Fyfe-Beedell	Nurse Specialist Biologics	01225 826226	rosefyfe-beedell@nhs.net
Jacky Budd	Nurse Specialist Biologics	01225 824312	Jacqueline.budd@nhs.net

Gastroenterology

Inflammatory bowel disease helpline (answer phone) for patients			
Inflammatory Bowel Disease Specialist Nurses		01225 825598	ruh-tr.ibd@nhs.net
Dr Linehan	Consultant Gastroenterologist	01225 821856	ruh-tr.gastroadvice@nhs.net
Dr Ben Colleypriest	Consultant Gastroenterologist	01225 824547	ruh-tr.gastroadvice@nhs.net
Dr Jonathan Quinlan	Consultant Gastroenterologist	01225 824547	ruh-tr.gastroadvice@nhs.net
Dr Tina Mehta	Consultant Gastroenterologist	01225 821856	ruh-tr.gastroadvice@nhs.net
Dr David Walker	Consultant Gastroenterologist	01225 826403	ruh-tr.gastroadvice@nhs.net
Dr John Saunders	Consultant Gastroenterologist	01225 821783	ruh-tr.gastroadvice@nhs.net
Dr Peter Marden	Consultant Gastroenterologist		ruh-tr.gastroadvice@nhs.net
Dr Adrian Griffiths	Consultant Gastroenterologist		ruh-tr.gastroadvice@nhs.net

Medicines Help line for patients 01225825361

http://www.ruh.nhs.uk/patients/medicines_helpline/index.asp

Medicines Information at Royal United Hospital 01225 824633

Out Patient Pharmacy: 01225 825869

OUT OF HOURS EMERGENCY CONTACT (5pm until 9am Mon to Sat and all weekend) Contact the Medical Admissions Unit Consultant 07818 013823 OUT OF HOURS in the event of SEVERE NEUTROPENIA

Responsibilities of Specialty Team, GP Team, Pharmacy Team & Patient

Specialist Responsibilities	
1	Provide patient with information on disease and drug treatment options and explain where drugs are used outside of license
2	Discuss the benefits and side effects of treatment with the patient (and advise women of child bearing age to use reliable contraceptive methods where necessary. Also discuss the effects of the drug on pregnancy if applicable, when the patient may be considering having a family (paternal effects as well) in the future.)and the intention to share care.
3	To confirm the patient has no contra-indications to treatment and consider the relevance of any cautions
4	Carry out pre-treatment assessment, including necessary physical and blood tests.
5	Confirm via a written request that the GP is willing to participate in shared care
6	Review pre-treatment assessment, including blood test results
7	Initiate treatment with DMARD & give the patient a monitoring booklet/ patient info leaflet as appropriate
8	Report any side effects to the MHRA via the yellow care scheme
9	Send GP details of baseline assessments and results, prescribed dose of DMARD, monitoring requirements and a summary of information that has been given to the patient
10	At first review appointment check initial monitoring results and assess response to treatment
11	Communicate promptly with the GP when treatment is changed or needs to be changed by the GP, and when any changes in monitoring are required
12	Advise GP that pneumococcus and influenza vaccinations are recommended in patients taking DMARDs.
13	Have a mechanism in place to receive rapid referral of a patient from the GP in the event of deteriorating clinical condition
14	Ensure that clear backup arrangements exist for GPs to obtain advice and support

General Practitioner responsibilities

1	Reply to the request for shared care as soon as practicable.
2	Prescribe the DMARD at the dose recommended.
3	Carry out monitoring according to the guideline recommendations.
4	Ensure the patient is aware of any treatment change and that where held, the monitoring booklet is up to date
5	Ensure the patient is aware of any treatment change and that where held, the monitoring booklet is up to date.
6	Refer patient to specialist if his or her condition deteriorates.
7	Stop treatment on the advice of the specialist or immediately if an urgent need to stop treatment arises.
8	Report adverse events to the specialist team and MHRA via the yellow card scheme.

Pharmacist responsibilities

1	Ensure appropriate dose prescribed with clear directions not 'as directed'.
2	Provide advice on adverse effects and any drug interactions with prescription and/or OTC medicines
3	Issue patient information leaflets where appropriate
4	Monitor frequency of prescription requests and contact GP if quantities in excess of the prescribed dose are ordered
5	Advise patient to report any malaise, unexplained bruising or sore throats to Specialist / GP

Patient responsibilities	
1	Report to the specialist or GP if he or she does not have a clear understanding or has any concerns in relation to treatment
2	Ensure safe storage and handling of medicine
3	Request repeat prescriptions from GP in good time
4	Ensure the Pharmacist is aware of the DMARD they are taking prior to purchase of any OTC medicine.
5	Ensure the GP and specialist are aware of any over-the-counter medicines they may be taking.
6	Where patient-held monitoring booklets have been given ensure these are brought to each appointment with their GP or specialist
7	Report any adverse effects to the GP or specialist.
8	Attend blood monitoring appointments

Standard Monitoring Schedule requirements:

For use when starting or adding a new DMARD.

Check FBC, creatinine/calculated GFR, ALT and/or AST and albumin every:

- Two weeks until on stable dose for 6 weeks then
- Once on stable dose, monthly FBC, creatinine/calculated GFR, ALT and/or AST and albumin for 3 months.
- Thereafter FBC, creatinine/calculated GFR, ALT, and/or AST and albumin at least every 12 weeks*

*More frequent monitoring is appropriate in patients at higher risk of toxicity (e.g. prior history of adverse drug reactions, patients at extremes of weight, very elderly, impaired renal function and those with co prescriptions of medications that may interact with DMARDS).

Dose increases should be monitored by FBC, creatinine/calculated GFR, ALT and/or AST and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule

Prescribing Information & Monitoring Requirements

In addition to absolute values for haematological indices a rapid fall or rise and a consistent upward or downward trend in any value should prompt caution and extra vigilance. U/E and creatinine, CRP and/ or ESR should be checked every 6 months. This will enable monitoring of renal disease & disease activity.

DRUG	Indication & dose	Pre-treatment assessment	FBC	U&E, Creatinine (eGFR)	LFT	URINE DipStick Protein	Additional information
Apremilast TLS Red for all indications	Psoriasis / PsA: usual dose 30mg BD after an initial 6 day titration schedule (starting at 10mg OD)	Height, weight, FBC, U&E, LFT, Creatinine (eGFR)	No routine blood monitoring				
Azathioprine TLS Amber for all indications which are not oncology / haematology	RA, CTD: 1mg/kg per day increase at 4-6 weekly intervals to max 3mg/kg per day. Acute/chronic auto immune hepatitis: 1-3mg /kg per day Gastroenterology Inflammatory bowel disease (unlicensed): 2-2.5mg/kg per day (see additional info) Dermatology Severe refractory eczema, psoriasis , psoriatic arthritis, bullous dermatoses incl pemphigoid (unlicensed): 1-3mg/kg per day	Height, weight, FBC, U&E, LFT, Creatinine (gastro request) (unless done within 6 months). Consider Screening for Hepatitis B & C & HIV. Respiratory history and examination; consider lung function tests and imaging (CXR +/- HRCT) if any concerns TPMT assay-gives additional information on risks of treatment but does not replace routine monitoring. <i>Homozygous deficiency</i> -serious and fatal toxicity- can occur within 6 weeks of starting. <i>Heterozygous deficiency</i> - linked to serious adverse events, symptoms may not be evident until 6 months after starting treatment. If patient is found to have heterozygous deficiency, monitoring of blood should take place at monthly intervals	As per standard monitoring schedule on page 5			-	Reduce azathioprine dose to 25% (i.e ¼) of the original when given with allopurinol
Mercaptopurine TLS Amber TLS RED Oncology / haematology	Gastroenterology Inflammatory bowel disease, autoimmune chronic and active hepatitis (unlicensed): 0.75-1.5mg/kg per day	See azathioprine (azathioprine is a prodrug which is converted to mercaptopurine <i>in vivo</i> & monitoring requirements are the same) <i>Note: should NOT be prescribed as 6-mercaptopurine OR 6-MP</i> Reduce mercaptopurine dose to 25% (i.e ¼) of the original when given with allopurinol					

DRUG	Indication & dose	Pre-treatment assessment	FBC	U&E, Creatinine (eGFR)	LFT	URINE DipStick Protein	Additional information
<p>Ciclosporin</p> <p>TLS Red for ALL indications</p> <p><i>Prescribe generically for all except transplant pts (RUH) Monitor when switching between caps & oral solution- differences in bioequivalence. Contact MI for advice 01225824633</i></p>	<p>RA: 2.5mg/kg per day in 2 divided doses, increasing after 6 weeks by 25mg increments to a maximum of 4mg/kg per day (licensed)</p> <p>Dermatology: severe atopic dermatitis, severe psoriasis: 2.55 mg/kg per day in 2 divided doses titrated to skin response (licensed)</p> <p>Gastroenterology: ulcerative colitis (unlicensed) 5 – 6.5mg/kg per day in 2 divided doses for short courses</p>	<p>FBC, U&E, LFT, Creatinine (eGFR): Twice at 2 weeks apart – to obtain mean value</p> <p>Creatinine clearance or equivalent Fasting Lipids BP: ≤ 140/90 on 2 occasions at 2/52 apart.</p> <p>Consider Screening for Hepatitis B & C & HIV.</p> <p>Respiratory history and examination; consider lung function tests and imaging (CXR +/- HRCT) if any concerns</p>	Fortnightly until dose stable for 6 weeks, then monthly			-	<p>Check blood pressure and glucose at each attendance. Maintain BP ≤140/90. Vigilance when NSAID added, particularly diclofenac -reduce diclofenac dose by 50%</p> <p>Check fasting lipids every 6 months</p>
<p>Dapsone</p> <p>TLS amber for licensed indications</p>	<p>Dermatitis herpetiformis (licensed) & other inflammatory dermatoses neutrophilic vasculitis: start 50mg daily gradually increased to 300mg then reduced to usual maintenance dose of 25-50mg daily.</p>	FBC, LFTs	Fortnightly for 2 months then at least every 3 months.		Monthly until dose stable then 3 monthly	-	
<p>Hydroxychloroquine</p> <p>TLS Amber</p>	<p>RA, CTD systemic & discoid lupus erythematosus, photosensitive dermatological conditions 200 – 400 mg daily. Max 6.5mg/kg/day (based on ideal body weight)</p>	<p>FBC, U&E, LFT Patients should have a baseline formal ophthalmic examination ideally including objective retinal assessment (e.g. OCT) within 1 year of commencing.</p>	No routine blood monitoring			-	<p>Annual review by ophthalmologist is advised . Discuss with ophthalmologist if treated >5yrs Advise patients to report changes in vision</p>
			Commissioning of a service for ophthalmology monitoring being addressed by CCGs March 2018				

DRUG	Indication & dose	Pre-treatment assessment	FBC	U&E, Creatinine (eGFR)	LFT	URINE DipStick Protein	Additional information
<p>Leflunomide</p> <p>TLS Amber</p>	<p>RA & psoriatic arthritis: 10mg – 20 mg daily. Maximum 20mg daily when given as monotherapy.</p> <p>Use 10mg daily in combination with other hepatotoxic drugs such as methotrexate</p> <p>(Not used in dermatology)</p>	<p>FBC, U&E, LFT, Creatinine. Blood Pressure on 2 occasions 2 weeks apart. If > 140/90 treat before starting Rx Body weight</p> <p>Consider Screening for Hepatitis B & C & HIV.</p> <p>Respiratory history and examination; consider lung function tests and imaging (CXR +/- HRCT) if any concerns</p>					<p>BP at each visit. If BP >140/90 treat in line with NICE guidance. If BP remains uncontrolled, stop & consider washout</p> <p>Weigh at each visit. If > 10% weight loss with no other cause identified, reduce dose or stop and consider washout. Simple dose reduction is unlikely to produce a rapid decrease of adverse effects (half-life is approx. 2 weeks). If a rapid response is required, consider washout and seek specialist advice</p>

DRUG	Indication & dose	Pre-treatment assessment	FBC	U&E, Creatinine (eGFR)	LFT	URINE DipStick Protein	Additional information
<p>Methotrexate</p> <p>TLS Amber</p>	<p>RA, Psoriasis Psoriatic arthritis, Crohn's disease, connective tissue disease (SLE, myositis, vasculitis), Felty's Syndrome, inflammatory bowel disease (unlicensed): 7.5 – 25mg ONCE a week.</p> <p>Increase every 2-6 weeks to a maximum dose of 25mg ONCE weekly.</p> <p>Rarely max 30mg ONCE week ONLY prescribe as 2.5mg strength tablets (not 10mg tablets)</p> <p>Rheumatology / Dermatology s/c route may be given for patients unable to tolerate oral methotrexate See Injectable Shared Care BCAP Website</p>	<p>FBC, U&E (eGFR), LFT Respiratory history and examination; consider lung function tests and imaging (CXR +/- HRCT) if any concerns</p> <p>Consider Screening for Hepatitis B & C & HIV.</p> <p>P3NP (procollagen peptide assay) in dermatology patients</p>					<p>New or increasing dyspnoea or dry cough – withhold and discuss urgently with the specialist team. Avoid prescribing trimethoprim or cotrimoxazole to patients receiving Methotrexate – greatly increases risk of marrow aplasia. Specialists may recommend co-prescribing of methotrexate and NSAIDs/ aspirin clinically significant interactions are rare</p> <p>Folic acid given to minimise side effects is usually given 5mg-10mg once weekly, not on the same days as methotrexate; however doses can vary Ensure patient has a info leaflet/monitoring booklet: http://www.nrls.npsa.nhs.uk/resources/?entryid45=59800</p>

DRUG	Indication & dose	Pre-treatment assessment	FBC	U&E, Creatinine (eGFR)	LFT	URINE DipStick Protein	Additional information
<p>Mycophenolate</p> <p>TLS amber for Autoimmune Rheumatic Diseases (BCAP March 2016)</p> <p>TLS RED all for all other indications</p>	<p>RA, SLE, lupus nephritis, dermatomyositis, polymyositis, systemic sclerosis, vasculitis, psoriasis, atopic dermatitis, severe inflammatory disease & pemphigus</p> <p>(unlicensed): Start 500mg daily increase weekly by 500mg to optimal or max. tolerated dose. Max – 3g/day.</p>	<p>FBC, U&E (eGFR), LFT</p> <p>Respiratory history and examination; consider lung function tests and imaging (CXR +/- HRCT) if any concerns</p> <p>Consider Screening for Hepatitis B & C & HIV.</p>	<p>As per standard monitoring schedule on page 5</p>				<p>Advise patients to report any signs or symptoms of bone marrow suppression- inexplicable bruising or bleeding</p> <p>See MHRA Drug Safety Update 14 Dec 2015: Mycophenolate mofetil, mycophenolic acid: new pregnancy-prevention advice for women and men</p>
<p>D-Penicillamine</p> <p>TLS amber</p>	<p>RA, Wilson’s disease:</p> <p>Start 125–250mg/day increase by 125mg, 4 weekly initially to 500mg.</p> <p>Max dose 750mg/day in divided doses</p>	<p>FBC, U&E, Creatinine & Urinary Protein</p>	<p>Every 2 weeks until stable for 3 months. Monthly there after.</p>	<p>-</p>	<p>-</p>	<p>Every 2 weeks until stable for 3 months. Monthly there after</p>	<p>Ask about skin rash or oral ulceration at every visit. Alteration of taste usually settles spontaneously.</p>
<p>Sodium aurothiomalate (Gold)</p> <p>TLS amber</p>	<p>RA, juvenile idiopathic arthritis.</p> <p>10 or 20mg IM stat test dose. Then 50mg weekly, until signs of remission occur. Then decrease freq. to every 2/52 until full remission. The interval between injections should then be increased progressively as advised by the specialist.</p>	<p>FBC, U&E (eGFR), LFT, Creatinine & Urinary Protein</p>	<p>As per standard monitoring schedule on page 5</p> <p>Provided blood results are stable, the results of the FBC need not be available before the injection is given but must be available before the next injection, i.e. it is permissible to work one FBC in arrears.</p>			<p>Urinalysis (for blood & protein) should be carried out just before each injection</p>	<p>Ask about skin rash or oral ulceration at every visit. The patient should remain under medical observation for a period of 30 minutes after drug administration. Toxicity can occur rapidly, if in doubt omit injection and seek specialist advice</p>

<p>Sulfasalazine TLS amber</p>	<p>Ulcerative colitis, Crohn's disease: 1g twice daily increasing to 4g daily in divided doses. <i>Use plain sulfasalazine</i> RA: Start at 500mg/day increasing by 500mg weekly to maximum of 2-3 grams/daily (Licensed) Sero-negative spondyloarthropathy, psoriasis (unlicensed): Dose as in RA above <i>Use Enteric-Coated (EC) sulfasalazine.</i></p>	<p>FBC, U&E (eGFR), LFT, Creatinine Consider Screening for Hepatitis B & C & HIV.</p>	<p>As per standard monitoring schedule on page 5</p> <p>Repeat one month after dose increase. If stable after 1 year then no routine monitoring needed.</p> <p>Dose increase or unstable bloods: Repeat every 2 weeks (until dose / bloods stable for 6 weeks) and then return to monthly</p>		<p>Ask about skin rash, oral ulceration at each visit.</p>
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Monitoring - Action to be taken if any of the following applies:

WBC $3.5 \times 10^9/l$	Withhold until discussed with specialist team
Neutrophils <math><1.6 \times 10^9/l</math>	Withhold until discussed with specialist team
Eosinophils > $0.5 \times 10^9/l$	Withhold until discussed with specialist team
Platelets <math><140 \times 10^9/l</math>	Withhold until discussed with specialist team
Haemoglobin reduction of > 3g/dl	Withhold until discussed with specialist team
ALT &/or AST >100u/L (from upper limit of reference range)	Withhold until discussed with specialist team Leflunomide- special rules: ALT/AST 2-3x upper limit normal – reduce dose to 10mg, recheck weekly. If normalized – continue 10mg; if remains elevated withdraw drug and discuss with specialist team. If ALT/AST >3x normal, stop drug, recheck within 72 hours. If still >3x, withdraw drug and consider washout. Check other reason e.g alcohol or other medicines or drug interactions
Albumin –unexplained fall (Methotrexate)	Withhold until discussed with specialist team
MCV >105 fl	Investigate (and check if B12 or folate or TSH low start supplementation)
Creatinine > 30% rise from baseline	Repeat in 1 week if still >30% above baseline withhold until discussed with specialist team
Potassium rise to above normal range	Withhold until discussed with specialist team and recheck it remains raised
Urinary protein on dipstick is 2+ (D-Penicillamine / Gold)	Send a MSU for culture requesting protein + C&S. If MSU confirms infection, treat appropriately. If sterile proteinuria – seek advice from specialist team
Blood pressure >140/90mm Hg (Ciclosporin)	Manage hypertension according to NICE hypertension guidance (Ciclosporin – discuss with specialist team)
Fasting lipids –significant rise (Ciclosporin)	Withhold until discussed with specialist team
Any unexplained illness e.g. nausea/dizziness/headache	If symptoms severe withhold until discussed with specialist team & consider review
Abnormal bruising or sore throat	Withhold until FBC result available
Unexplained acute widespread rash/ hair loss	Withhold – seek urgent specialist (preferably dermatological) advice
New Oral ulceration	Withhold until discussed with specialist
New increasing dyspnoea or cough (methotrexate /leflunomide)	Withhold & discuss urgently with specialist team
As well as responding to absolute values in laboratory tests, it is also relevant to observe trends in results (e.g. gradual decrease in WBC or albumin or climbing liver enzymes)	

November 2011 BSR Statement on Vaccination in Adult Patients with Rheumatic Diseases

http://www.rheumatology.org.uk/includes/documents/cm_docs/2011/b/bsr_vaccination_statement_nov_2011.pdf

- Individuals with immunosuppression should be given inactivated vaccines in accordance with national recommendations.
- It is recommended that patients with autoimmune inflammatory rheumatic diseases should be offered pneumococcal and influenza vaccination.
- Vaccination should ideally be administered at least 2 weeks prior to immunosuppression.

In individual cases it may be necessary to discuss vaccination with an appropriate local specialist in infectious disease and the patient's General Practitioner. Further advice is available through Public Health England's "Green Book" on Immunisation against Infectious Disease. <https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book> The vast majority of these vaccinations are given in Primary Care and it is advised that robust local arrangements are instituted to raise awareness both to patients and their General Practitioners of the need for appropriate vaccinations.

For other details related to immunisation see

- PHE Green Book <https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-greenbook> Chapter 28a
- For specific details relating to Zostavax and patients on DMARDs / Steroids see PHE Advice to Health Care Professionals Vaccination against shingles: 2015/16 Last updated 24 February 2016
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503099/PHE_Shingles_advice_for_health_professionals_2015-16_February2016_V4.pdf
- See NHSE PGDs <https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2017/05/phe-pgd-shingles-v06.pdf>

References

- British National Formulary 72 Sept 2016 – March 2017 <http://www.bnf.org/>
- Electronic Medicines Compendium. Available at: www.emc.medicines.org.uk
- **BSR/BHPR Non-biologic DMARD guidelines 2017:** BSR and BHPR guideline for the prescription and monitoring of non-biologic disease-modifying anti-rheumatic drugs
- BSR Statement on Vaccination in Adult Patients with Rheumatic Diseases. November 11. Available at:
http://www.rheumatology.org.uk/includes/documents/cm_docs/2011/b/bsr_vaccination_statement_nov_2011.pdf
- Reducing the harm caused by oral methotrexate. National Patient Safety Agency. 29 July 2004. Available via www.npsa.nhs.uk/health/alerts Improving compliance with oral methotrexate guidelines. Patient Safety alert 13. National Patient
- Safety Agency. 1 June 2006. Available via www.npsa.nhs.uk/health/alerts
- NPSA rapid response report on the risks of incorrect dosing of oral anti-cancer medicines (NPSA/2008/RRR001) Guidelines for the management of IBD in adults- on behalf of the IBD section of the British Society of Gastroenterology GUT 2011; 60;5, 571-607.
- <http://www.worcestershire.nhs.uk/publications/policies-and-procedures/medicine-management-pharmacy--including-area-prescribing-committee/area-prescribing-committee.aspx>
- RCOphth guidelines [Hydroxychloroquine and Chloroquine Retinopathy Screening – Executive Summary 2018](#)