

Quick Reference Guide for Primary Care Prescribers
Monitoring Disease Modifying Anti-Rheumatic Drugs (DMARDs)
Azathioprine, Mercaptopurine, Sulfasalazine,
Hydroxychloroquine, Ciclosporin, Penicillamine, Leflunomide and
Mycophenolate mofetil in adults for Gastroenterology,
Rheumatology and Dermatology indications

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Document Control		
Date	Version	Action
February 2019	V5	Added leflunomide and mycophenolate mofetil. Added additional indications for azathioprine (autoimmune hepatitis) and hydroxychloroquine (dermatology - erosive oral lichen planus). Maximum daily dose for hydroxychloroquine reduced to 5mg/kg/day actual body weight. Ophthalmic referral information for hydroxychloroquine updated. NICE CKS for RA removed – NICE NG100 for RA used (most up to date)

FACTSHEET TO FACILITATE PRESCRIBING

PLEASE NOTE THIS IS NOT A SHARED CARE GUIDELINE, NOR IS IT A FULL SUMMARY OF DRUG INFORMATION. ALWAYS REFER TO THE MOST RECENT BNF AND/OR SUMMARY OF PRODUCT CHARACTERISTICS.

Disclaimer

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NCL JFC is funded by and provides advice to Acute Trusts and Clinical Commissioning Groups in NCL.

This booklet discusses the commonly used systemic immunosuppressive drugs. It is not an alternative to using the BNF, its related appendices and any local disease specific treatment protocol or guidelines. The relevant SPC may also provide more detail on side effects and the licensing information. Drug interactions should be checked, especially for those taking, for example, warfarin, anti-epileptics, antifungals, antipsychotics and digoxin.

NB: Pre-treatment screening and baseline tests are needed before initiating treatments and these will be the responsibility of the initiating prescribers in secondary care. Therefore, this booklet provides a quick reference for the safe continued prescribing in primary care, when patients have been stabilised on treatment.

Use of DMARDs for Rheumatology indications¹⁻³

Disease-modifying anti-rheumatic drugs (DMARDs) can affect the progression of rheumatic disease but may require 2-3 months of treatment for a therapeutic response. Response to DMARDs may allow the dose of the non-steroidal anti-inflammatory drugs (NSAID) to be reduced or withdrawn.

All patients with suspected inflammatory joint disease should be assessed by a specialist as soon as possible to confirm diagnosis and evaluate disease activity; early initiation of DMARDs is recommended to control the signs and symptoms, and to limit joint damage.

The choice of a DMARD should take into account co-morbidity and patient preference.

First-line conventional DMARD monotherapy, such as methotrexate, leflunomide or sulfasalazine, should be offered ideally within three months of the onset of persistent symptoms. Hydroxychloroquine can be considered as an alternative for mild or palindromic disease. Short-term bridging treatment with glucocorticoids can be considered when a patient starts new DMARD therapy (intended to improve symptoms whilst waiting for the new DMARD to take effect, which can be for two to three months). Short-term glucocorticoid therapy can also be considered for managing flares in recent-onset or established disease to rapidly decrease inflammation. Combination DMARD therapy can be considered as a step-up strategy when the treatment target has not been achieved. In patients with established and stable rheumatoid arthritis (at least one year in remission or low disease activity without glucocorticoids), consider a cautious step-down strategy (tapering down and stopping one DMARD) – if the treatment target is no longer met, return promptly to the previous DMARD regimen.

Use of DMARDs for Gastro-intestinal indications^{1,4-6}

Patients with acute severe ulcerative colitis who are intolerant, decline or are contra-indicated to intravenous corticosteroids can be considered for intravenous ciclosporin therapy. A short-term course of intravenous ciclosporin can be added to intravenous corticosteroids when the patient has little to no improvement within 72 hours of starting intravenous corticosteroid therapy or for those whose symptoms worsen at any time despite corticosteroid treatment (unlicensed). Azathioprine use for autoimmune hepatitis (where patients are initiated by the hepatology clinic) is included in this document but is referenced under the broader term of gastroenterology.

Patients with unresponsive or chronically active IBD may benefit from azathioprine, mercaptopurine (unlicensed) or once-weekly methotrexate (unlicensed – specialist use only). These drugs have a slower onset of action so precludes usage as sole therapy for active disease (but can be offered as monotherapy to maintain remission).

Use of DMARDs for Dermatology indications⁷

This guidance also includes the use of DMARDs in dermatology, although many indications are unlicensed in dermatology. Further information on use of DMARDs in dermatology for various indications can be found on the British Association of Dermatologists website and by referring to the relevant NICE and SIGN guidelines for example psoriasis. GPs may also wish to refer to the Primary Care Dermatology Website for diagnostic and management information.

Specialists should always ensure patients are stable prior to asking GPs to take over responsibility for ongoing monitoring and prescribing.

Methotrexate

Methotrexate is NOT included in this guidance. Please refer to the NCL shared care guideline for methotrexate.

Prescribing for ophthalmic indications

The scope of this document does not cover ophthalmic indications.

Abbreviations used in this document	
ALT	Alanine aminotransferase
AST	Aspartate transaminase
CRP	C-reactive protein
DMARDs	Disease modifying anti-rheumatic drugs
FBC	Full blood count
GFR	Glomerular flow rate
LFT	Liver function tests
MCV	Mean corpuscular volume
6-TGN	6-thioguanine nucleotide
TPMT	Thiopurine methyltransferase
U&E	Urea and Electrolytes
VZV	Varicella zoster virus

DRUG	TYPICAL DOSE ^A			PRE-TREATMENT	FBC	U&E & Creatinine	LFT & Albumin	DOSE ALTERATIONS / OTHER MONITORING
	Gastro-Intestinal	Rheumatology	Dermatology					
Azathioprine ^{1,2,4,7,8,B}	<u>Crohn's disease/ Ulcerative colitis</u> 2-2.5 mg/kg daily Some patients may respond to lower doses <u>Autoimmune hepatitis^B</u> 1mg/kg/day			Baseline TPMT status* (secondary care responsibility prior to initiating therapy) FBC, U&E, Creatinine, LFT, albumin				CD/UC - After dose alteration: repeat FBC, LFTs, U&Es, CRP and 6-TGN after 6 weeks (NB. 6-TGN is only done in secondary care. If tests results stable, return to previous schedule or as advised by gastroenterology team) Autoimmune Hepatitis- Maintenance treatment to continue for 2 years, and at least for 12 months following normalisation of transaminases. Monitoring to continue as described throughout this period.
		1mg/kg/day (total daily dose) increasing at 2-6 weekly intervals to maximum up to 2-3mg/kg/day	<u>Unlicensed indication</u> 1mg/kg/day (total daily dose) increasing at 2-6 week intervals to maximum 3mg/kg/day [Severe refractory eczema, immunobullous disease] If for any other dermatological conditions, consult with specialist.	Screen for hepatitis B & C, VZV serology, & HIV serology in all patients.	Weekly for 4 weeks, THEN monthly for 3 months. Once stable, monitor every 3 months**	Every 2 weeks until stable dose for 6 weeks THEN once stable, monitor monthly for 3 months THEN monitor every 3 months**	After dose alteration: monitor FBC, U&Es, creatinine/calculated GFR, LFT's and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule or as advised by rheumatology/dermatology team	
Sulfasalazine ^{1,2,9}		Start at 500mg/day increasing by 500mg weekly to a maximum dose of 2-3g/day in divided doses. NB. Only the EC tablets are licensed for RA	No dermatology indication	FBC, U&Es, Creatinine, LFTs, albumin, Screen for hepatitis B & C, VZV serology, & HIV serology in all patients.	Every 2 weeks until stable dose for 6 weeks THEN once stable, monitor monthly for 3 months THEN monitor every 3 months** AFTER 12 months , no routine monitoring needed	After dose alteration: monitor FBC, U&Es, creatinine/calculated GFR, LFTs and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule or as advised by rheumatology teams		
	1-2g four times a day in active disease/acute flare. Once in remission, reduce gradually to 500mg four times a day			Monthly for 3 months THEN once stable for 3 months, monitor every 3 months** After 12 months , if bloods stable, monitor every 6 months. After 2 years , if bloods stable, no routine monitoring needed.	After dose alteration: repeat FBC, U&Es, Creatinine, LFTs after 1 month, or as advised by gastroenterology team			

*Avoid treatment if TPMT homozygous recessive or low enzyme activity. Heterozygotes with intermediate TPMT levels should receive lower treatment doses

**More frequent monitoring is appropriate in patients at higher risk of toxicity

DRUG	TYPICAL DOSE ^A			PRE-TREATMENT	FBC	U&E & Creatinine	LFT & Albumin	DOSE ALTERATIONS / OTHER MONITORING
	Gastro-Intestinal	Rheumatology	Dermatology					
Mercaptopurine ^{4,10,C}	Unlicensed indication 0.75-1.5 mg/kg/day. Dose adjustments should be at 4-6 week intervals	No rheumatology indication	No dermatology indication	Baseline TPMT status* (secondary care responsibility prior to initiating therapy) FBC, U&E, Creatinine, LFT, albumin Screen for hepatitis B & C, VZV serology, & HIV serology in all patients.	Weekly for 4 weeks THEN monitor monthly for 3 months. Once stable, monitor every 3 months			*Avoid treatment if TPMT homozygous recessive or low enzyme activity. Heterozygotes with intermediate TPMT levels should receive lower treatment doses After dose alteration: repeat FBC, U&Es, Creatinine, LFTs after 1 month, or as advised by gastroenterology team
Ciclosporin ^{1,2,11}	Unlicensed indication A short course of IV ciclosporin may be given in 2° care for severe ulcerative colitis unresponsive to IV cortico-steroids	Starting dose of 1.5mg/kg twice daily (doses equally distributed throughout the day). Lower dose of 1.25mg/kg twice daily if used in combination with low-dose methotrexate) Increase gradually if necessary after 6 weeks to lowest effective dose.	Starting dose of 1.25-2.5 mg/kg twice daily (doses equally distributed throughout the day); lower dose can be increased gradually to maximum 2.5 mg/kg twice daily if no improvement within 1 month (2 weeks for atopic dermatitis). <i>[severe atopic dermatitis, severe psoriasis, chronic spontaneous urticaria]</i>	FBC, U&E, LFT, Creatinine, albumin, baseline renal function should be obtained by at least 2 readings Blood pressure and glucose Serum lipids Blood cholesterol and magnesium Screen for hepatitis B & C, VZV serology, & HIV serology in all patients.	Every 2 weeks until dose stable for 6 weeks THEN monitor monthly for at least 12 months after initiation. Dermatology indications: Continuation of ciclosporin after 12 months should only be under the care of a specialist dermatology consultant in secondary care. Most patients will stop treatment after 12 months.			Monitor BP and glucose at every monitoring visit If hypertension develops, appropriate antihypertensive treatment must be started. Preference should be given to an antihypertensive agent that does not interfere with the pharmacokinetics of ciclosporin Serum lipids one month after initiating treatment After dose alteration – monitor FBC, U&Es, creatinine/calculated GFR, LFTs and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule or as advised by specialist
Penicillamine ^{1,12,13}	No gastroenterology indication	Starting dose of 125-250mg/day, Increase by same amount every 4-12 weeks until remission. Usual maintenance dose of 500-750mg/day in divided doses. (Max dose 1.5g/day)	No dermatology indication	FBC, U&E, Creatinine Urine analysis Screen for hepatitis B & C, VZV serology, & HIV serology in all patients.	Weekly for 8 weeks until dose stable THEN monthly thereafter	---	---	Monitor urinalysis - Weekly for 8 weeks until dose stable THEN monthly thereafter Patients should be advised to report signs and symptoms of granulocytopenia and/or thrombocytopenia (e.g. fever, chills, sore throat, easy bruising or unexplained bleeding) – withhold if symptoms present until FBC or specialist discussion. Consider withdrawing therapy if platelet counts fall below 120x10 ⁹ /L or white cell count below 2.5 x10 ⁹ /L (or either with three successive falls within reference range). Also consider withdrawing if considerable proteinuria or haematuria. A dose reduction should be considered in GFR of 20-50. Avoid in GFR 0-20 as nephrotoxic. After dose alteration: monitor FBC and urinalysis

DRUG	TYPICAL DOSE ^A			PRE-TREATMENT	FBC	U&E & Creatinine	LFT & Albumin	DOSE ALTERATIONS / OTHER MONITORING
	Gastro-Intestinal	Rheumatology	Dermatology					
Hydroxychloroquine ^{2,14,15}	No gastroenterology indication	200mg - 400mg daily. Maximum 5mg/kg/day. 400mg daily doses should be given in divided doses. (Should be calculated based on actual body weight)	200mg - 400mg daily. Maximum 5mg/kg/day. 400mg daily doses should be given in divided doses. (Should be calculated based on actual body weight) <i>[Dermatological conditions caused or aggravated by sunlight]</i> <i>[Also indicated for erosive oral lichen planus in the same dose range]</i>	FBC, U&E, LFT, creatinine Within 6 months of commencing treatment, patients should have a formal ophthalmic examination, ideally including objective retinal assessment (see comments section). Screen for hepatitis B in all patients.				<p>Patient should immediately report any visual disturbances, including abnormal colour vision, pigmentary abnormality or visual field defects</p> <p>The referral to the ophthalmologist, or appropriately equipped optician, for retinal assessment is the responsibility of the initiating clinician. Some trusts do not have an in-house ophthalmology service to which a referral can be made. If direct referral for ophthalmology assessments at another hospital is in place – this should be completed within 6 months from the date of initiation.</p> <p>If treatment is continued for >5 years, referral to ophthalmology services by the specialist clinician for annual eye assessments is recommended (ideally including optical coherence tomography). This can be within 5 years if additional risk factors exist (e.g. high doses, renal insufficiency or concomitant tamoxifen therapy).</p> <p>Patients should, ideally, delay their decision about whether to stop hydroxychloroquine until a conversation has taken place between the specialist (rheumatologist/dermatologist) and the patient, outlining the risks and benefits of any alternative systemic treatments that will be needed to control the disorder for which hydroxychloroquine was originally indicated.</p>

DRUG	TYPICAL DOSE ^A			PRE-TREATMENT	FBC	U&E & Creatinine	LFT & Albumin	DOSE ALTERATIONS / OTHER MONITORING
	Gastro-Intestinal	Rheumatology	Dermatology					
Leflunomide ^{D,1,16,17}	No gastroenterology indication	<p>Rheumatoid arthritis initially 100 mg once daily for 3 days, then 10–20 mg once daily</p> <p>Psoriatic arthritis initially 100 mg once daily for 3 days, then 20 mg once daily</p>	No dermatology indication	<p>FBC, U&E, LFT, albumin, creatinine and blood pressure</p> <p>Screen for hepatitis B & C, VZV serology, & HIV serology in all patients. Screening for lung disease at clinical discretion.</p>				<p>After dose alteration: : monitor FBC, U&Es, creatinine/calculated GFR, LFTs and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule or as advised by rheumatology teams.</p> <p>Blood pressure should be well controlled prior to starting treatment and monitored during treatment. Blood pressure and weight should be monitored at every monitoring visit.</p> <p>NICE recommends that certain symptoms may be a sign of leflunomide toxicity, and therefore the drug should be withheld and discussed with the rheumatologist if the patient develops</p> <ul style="list-style-type: none"> • Rash/itch • hair loss • severe sore throat or abnormal bruising (check FBC immediately) • hypertension (BP > 140/90) despite treatment • breathlessness • unexplained weight loss >10% • persistent headache • persistent GI upset
Mycophenolate mofetil ^{D,1,17,18}	No gastroenterology indication	<p>Unlicensed indication 500 mg once a day up to 1.5g twice a day [lupus erythematosus]</p>	<p>Unlicensed indication Up to 2g daily in divided doses. [pemphigus vulgaris, mucous membrane pemphigoid and oral lichen planus]</p>	<p>Pregnancy must be excluded with a negative pregnancy test and patient counselled on effective contraception prior to use (see pregnancy section below).</p> <p>FBC, U&E, LFT, creatinine, albumin</p> <p>Screen for hepatitis B & C, VZV serology, & HIV serology in all patients. Screening for lung disease at clinical discretion.</p>				<p>After dose alteration: : monitor FBC, U&Es, creatinine/calculated GFR, LFTs and albumin every 2 weeks until on stable dose for 6 weeks then revert back to previous schedule or as advised by rheumatology/dermatology teams.</p> <p>Measure serum immunoglobulins for patients who develop recurrent infections due to the risk of hypogammaglobulinaemia,</p> <p>If new or increasing dyspnoea or cough develops, withhold until discussed with specialist team.</p>

Pregnancy^{1,8-13,15,17,18}

Manufacturers of DMARD drugs recommend **avoiding the use of their respective medication during pregnancy** (except the manufacturers of sulfasalazine, who state that it should be used in pregnancy only if clearly needed).

The MHRA issued an alert for the use of mycophenolate in women and men, in which they report the active metabolite (mycophenolic acid) is associated with a high rate of serious birth defects and increased risk of spontaneous abortion. As such, recommendations for mycophenolate are the following:

- Mycophenolate mofetil or mycophenolic acid should not be used in pregnancy.
- Both women and men should be informed on initiation of the risk of harm, the need for contraception, the need to plan pregnancy and change treatment as necessary, and the need to inform a healthcare professional if becomes pregnant.
- Mycophenolate mofetil or mycophenolic acid should only be initiated in women of childbearing potential when there is a negative pregnancy test to rule out unintended use in pregnancy.
- Mycophenolate mofetil or mycophenolic acid should only be given to women of childbearing potential who are using effective contraception.
- Women should use 2 forms of effective contraception during treatment and for 6 weeks after stopping treatment.
- Men (including those who have had a vasectomy) should use condoms during treatment and for at least 90 days after stopping treatment. This advice is a precautionary measure due to the genotoxicity of these products.
- Female partners of male patients treated with mycophenolate mofetil or mycophenolic acid should use highly effective contraception during treatment and for 90 days after the last dose.

Table references^{1,7,10}

- A. Typical dosing schedule refers to adult doses; for information on children, refer to individual Summary of Product Characteristic (SPC).
- B. Azathioprine is used by Dermatologists for many dermatological conditions. See: <http://www.bad.org.uk/>. Azathioprine use in autoimmune hepatitis is a JFC approved indication which would fall under hepatology specialist services, though for the purpose of this document it falls under the broader term of gastroenterology.
- C. Mercaptopurine is licensed for use in acute and chronic myeloid leukaemia. The use of oral cytotoxics for oncology indications is on the NCL 'Red List', therefore, the prescribing and supply of oral cytotoxics should remain with the specialists in secondary care. Although widely used in inflammatory bowel disease (IBD), it is not licensed for this indication and there is no agreed shared care guideline agreed for this indication. As the drug is being used 'off-label', if you are happy to continue to prescribe for IBD, it is important to ensure that the patient has been initiated and stabilised by the specialist, a clear treatment plan is in place, and monitoring requirements and guidance on toxicity are adhered to.
- D. Leflunomide and Mycophenolate were previously on the NCL Red List for all indications. These are now removed from the NCL Red List for JFC approved indications within this document.

General notes^{1,2,19,20}

1. Monitor patient's overall health and well-being.
 2. Report any adverse events to the specialist team, where appropriate.
 3. Report any adverse events to the MHRA via www.mhra.gov.uk/yellowcard where appropriate.
 4. Help in monitoring the progression of disease.
 5. Prescribe the drug treatment as recommended by specialist team.
- The summary guideline does not address combination therapy.
 - Beware of drug interactions; always refer to the BNF and SPC for individual drugs before prescribing.
 - Do not administer any live vaccines to these patients.
 - Vaccinations against influenza and pneumococcus are recommended.
 - Patients are more susceptible to infections, therefore check FBC, U&Es, LFTs & CRP, and treat accordingly.
 - Blood disorders - patients should be advised to report any unexplained bleeding, bruising, purpura, sore throat, fever or malaise. Drug treatment should be stopped immediately if there is suspicion of a blood dyscrasia.
 - Watch out for oral ulceration/sore throats/nose bleeds/bruising/rash
 - If patients come into close contact with Varicella Zoster, perform a general assessment to establish the certainty of chickenpox in the contact and level of exposure. Seek same-day specialist advice regarding testing and management. People with significant exposure to chickenpox and immunocompromised should be tested for Varicella Zoster antibody regardless of their history of chickenpox.
 - If diagnosis of stage 1 or 2 hypertension, manage hypertension according to NICE Hypertension Guidance.

Gastroenterology/Dermatology/Rheumatology Monitoring – Action to be taken²¹

Liaise with specialist in case of any of the following which may be reason to consider withdrawal or dose alteration.

Adverse effect	Action to be taken
Abnormal bruising or severe sore throat	Immediate FBC and withhold DMARD until FBC result available. <i>Discuss with specialist</i>
Severe rash or oral ulceration, unexplained illness including nausea and vomiting, diarrhoea	Withhold DMARD <i>until discussed</i> with specialist
WBC $<3.5 \times 10^9/l$	
Neutrophils $<2 \times 10^9/l$	
Unexplained Eosinophil $>0.5 \times 10^9/l$	
Platelet count $<150 \times 10^9/l$	
Significant deterioration in renal function – increase in creatinine $> 30\%$ of baseline OR decrease in calculated GFR $< 60ml/min$	
AST/ALT $>$ twice upper limit of reference range	
Unexplained reduction in serum albumin $<30g/L$	
MCV $> 105 f/l$	Withhold and check serum B12, folate and TFT and discuss with specialist if necessary

As well as responding to absolute values in laboratory tests, it is also relevant to observe trends in results (e.g. gradual decreases in WBC or albumin, or climbing liver enzymes). Clinical signs should also be taken into consideration.

Contact details for specialist teams

The consultant and specialist team should ensure that their individual contact details are included within any communication letters to enable the GP to contact them for further support or advice, as needed.

Whittington Hospital	
Switchboard number	0207 272 3070
Rheumatology CNS	0207 288 5257
Rheumatology consultant	0207 288 5740
Dermatology CNS	0207 288 5062
Dermatology consultant	0207 288 5266
Gastroenterology CNS	0207 288 5692 or GIHelpline@nhs.net
Gastroenterology consultant	0207 288 5692 or GIHelpline@nhs.net
North Middlesex Hospital	
Switchboard number	0208 887 2000
Rheumatology CNS	0208 887 3662 (Deborah Palmer)
Rheumatology consultant	0208 887 2347 (Dr Mukerjee)
Dermatology secretaries	0208 887 2426
Gastroenterology CNS	0208 887 2960
Gastroenterology consultant	0208 887 2251 (Dr Dor)
Hepatology	020 8887 2960/2251 (as part of gastroenterology service)
Royal Free Hospital	
Switchboard number	0207 794 0500
Rheumatology CNS	Extension 32494 / 34062 or rf-tr.rheumnurseshampstead@nhs.net
Rheumatology consultant	Extension 32494
Dermatology CNS	Extension 31623
Dermatology consultant	Extension 31623
Gastroenterology CNS	0207 830 2283 or rf.ibdnurses@nhs.net
Gastroenterology consultant	0207 830 2283
Hepatology consultant	020 7794 0500
Barnet Hospital	
Switchboard number	0208 216 4600
Rheumatology CNS	0208 216 4523
Rheumatology consultant	0208 216 4028 / 5470
Dermatology CNS	0208 216 5489
Dermatology consultant	0208 216 5489
Gastroenterology	n/a
Chase Farm Hospital	
Switchboard number	0208 375 2999
Rheumatology CNS	0208 375 1628
Rheumatology consultant	0208 375 1608
Dermatology CNS	0208 375 1999
Dermatology consultant	0208 375 1999
Gastroenterology	n/a
University College London hospitals	
Switchboard number	0203 456 7890
Rheumatology CNS	0203 447 9215 / 9035 / 9281 or uclh.rheumatology@nhs.net
Rheumatology consultant	0203 447 9215 / 9035 / 9281 or uclh.rheumatology@nhs.net
Dermatology CNS	07507790466
Dermatology consultant	uclh.dermatology@nhs.net
Gastroenterology CNS/ Gastroenterology consultant	0203 447 5120 or uclh.ibdadvice@nhs.net
Hepatology	0203 447 5120 or uclh.ibdadvice@nhs.net
	020 3447 9229 or uclh.GIMedicineEnquiries@nhs.net
St Marys Hospital	
Switchboard number	0203 311 1234
Rheumatology CNS	0203 312 3795
Rheumatology consultant	Secretary – 0203 312 7789
Dermatology CNS	0203 312 5661
Dermatology consultant	Secretary – 0203 312 1083
Gastroenterology CNS	n/a
Gastroenterology consultant	Secretary – 0203 312 1208
Royal National Orthopaedic Hospital	
Switchboard	0208 954 2300
Rheumatology CNS	0208 909 5461
Rheumatology consultant	0203 947 0044 (select “secretaries” option for medical secretaries)

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