

COVID19 Shared Cared Drug Monitoring Guide - South Staffordshire CCGs Medicines Formulary (29/04/20)

COVID-19 rapid guideline: rheumatological autoimmune, inflammatory and metabolic bone disorders:

In patients known or suspected to have COVID-19 the Specialist Team are advised to:

- inform the patient to continue hydroxychloroquine and sulfasalazine
- inform the patient to not suddenly stop prednisolone
- only give corticosteroid injections if the patient has significant disease activity and there are no alternatives, and refer to NHS England's clinical guide on the management of patients with musculoskeletal and rheumatic conditions on corticosteroids.
- temporarily stop other disease-modifying antirheumatic drugs, JAK inhibitors and biological therapies, and tell the patient to contact their rheumatology department for advice on when to restart treatment.

South Staffordshire COVID-19 interim guidance with existing shared care arrangements in place for patients not known or suspected of COVID-19:

Monitoring responsibility remains unchanged to the agreements in place prior to the crisis.

In the South Staffordshire Health economy, shared care monitoring responsibilities are shared with GPs and specialists, contractual deviation from ESCA monitoring during pandemic should only be accepted with consultants letter and with agreement with the GP, as a way forward unless the GP has concerns, otherwise continue with monitoring as per ESCA. Similarly if the GP independently delays monitoring after careful assessment as per local and national guidelines, this must be communicated back to the consultant as a two way process, so contractually shared care continues.

This guide is to support GPs at the point of issuing a prescription and to support any agreed LES arrangements where already in place.

The specialists, where possible, will maintain the monitoring intervals in line with the agreed ESCA but should the need arise for the interim COVID crisis period only, the interval between monitoring may be extended in line with the advice below and in agreement with the GP.

This guide will be retired as soon as possible.

Drugs in Class	BNF or ESCA Classification	South Formulary Status (QHB & MPFT for ESCAs)	GP or Consultant Monitoring	SOUTH ESCA Guidance or National Monitoring Advice	Interim COVID-19 Shared Care Drug Monitoring Advice for Patients Not Known or Suspected to Have COVID-19 In agreement with UHNM, MPFT & UHDB, RWT and Walsall
Amiodarone	Antiarrhythmic	AMBER	GP	Annual ophthalmological check recommended patient to highlight any blurred or decreased visual symptoms. Annual ECG, CXR & PFTs. 6 monthly TFT, LFT, U&Es. TFTs for up to 12 months after discontinuation. If on warfarin, INR more frequent monitoring during and after discontinuation.	<p>UHNM: No change to monitoring during initiation & stabilisation of the medicine or during the first 12 months of treatment. No change to monitoring for those with previous abnormal results. In the absence of symptoms suggestive of side effects in a stabilised patient including patient reported dyspnoea or eye health concerns, monitoring can be deferred for 1 to 2 months.</p> <p>RWT: Maintenance: In the absence of symptoms suggestive of side effects, defer monitoring for 3-6 months. Patients who are not stabilised on treatment (i.e. who have not completed a reducing regime to a maintenance dose of 200mg once daily) should be discussed with a specialist.</p>
Amisulpride	Antipsychotic 2nd Gen	AMBER-E	GP	Once the patient condition and treatment has been stable for 3 months the GP can be invited to take over the prescribing and element of monitoring if required under a shared care agreement - Prior to initiation = baseline All: f- Glucose, HbA1c f- Lipid (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), U&Es, LFTs, FBC, pulse & BP, BMI, waist circumference, Prolactin, ECG (only if CV disease or at high risk unless in-patient), assessment of movement disorders, nutritional status, diet and level of exercise, 1 month - All: BMI Clozapine & Olanzapine: f- glucose, HbA1c, 3 months - All: f-Lipid, BMI, pulse and BP, f-glucose, HbA1c, 12 months - All: f-Glucose, HbA1c f- Lipids, BP, BMI, waist circumference, After first year - Annually- All: f-Glucose, HbA1c f-Lipids (>40 years), pulse & BP, BMI, waist circumference, Prolactin,* adherence and movement disorders, physical examination including CV risk assessment Quetiapine: additionally TFTs Clozapine & Olanzapine: f- glucose & HbA1c every 6 months, Additional testing requirement to annual All- in children & adolescents: BMI 6-monthly	<p>MPFT led monitoring: baseline 3 monthly monitoring will be replaced by 6 monthly monitoring and fasting blood glucose will follow at 6 months.</p>
Apomorphine	Parkinson's disease	AMBER E on SS formulary no ESCA on front page - Derby/RWT - ESCA on their formulary	GP	Perform initial full blood count (FBC). FBC should also be performed at 6-12 monthly intervals and results should be appropriately actioned.	No change
Aripiprazole	Antipsychotic 2nd Gen	AMBER-E - Depot injection Red status	GP	Once the patient condition and treatment has been stable for 3 months the GP can be invited to take over the prescribing and element of monitoring if required under a shared care agreement - Prior to initiation = baseline All: f- Glucose, HbA1c f- Lipid (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), U&Es, LFTs, FBC, pulse & BP, BMI, waist circumference, Prolactin, ECG (only if CV disease or at high risk unless in-patient), assessment of movement disorders, nutritional status, diet and level of exercise, 1 month - All: BMI Clozapine & Olanzapine: f- glucose, HbA1c, 3 months - All: f-Lipid, BMI, pulse and BP, f-glucose, HbA1c, 12 months - All: f-Glucose, HbA1c f- Lipids, BP, BMI, waist circumference, After first year - Annually- All: f-Glucose, HbA1c f-Lipids (>40 years), pulse & BP, BMI, waist circumference, Prolactin,* adherence and movement disorders, physical examination including CV risk assessment Quetiapine: additionally TFTs Clozapine & Olanzapine: f- glucose & HbA1c every 6 months, Additional testing requirement to annual All- in children & adolescents: BMI 6-monthly	<p>MPFT led monitoring: baseline 3 monthly monitoring will be replaced by 6 monthly monitoring and fasting blood glucose will follow at 6 months.</p>
Atomoxetine adults	Drugs for attention deficit hyperactivity disorder	AMBER E	GP	Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring. Weight - Weight to be measured 6th month after initiation and six monthly thereafter. Heart rate and Blood pressure - Chart before and after each dose change and routinely every Six months.	<p>MPFT Led Monitoring: Individualised advice, dependant on when patient was last seen Seen in last 9 months with no reported concerns - GP can continue prescribing the medication. Patients with home BP monitor may be reviewed remotely rather than delay BP check.</p>

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Atomoxetine children and adolescents	Drugs for attention deficit hyperactivity disorder	AMBER E	GP	As appropriate, on-going monitoring, using centile and growth charts, monitor the patients blood pressure and pulse (eg: before and after each dose change and 6 monthly) and growth parameters (height and weight minimum 6 monthly) and psychiatric symptoms.	MPFT Led Monitoring: Individualised advice, dependant on when patient was last seen. CAMHS prescriber will offer telephone advice. Seen in last 9 months with no reported concerns- GP can continue prescribing the medication.
Azathioprine	Chronic bowel disorders (Inflammatory Bowel Disease) Autoimmune Rheumatic Diseases	AMBER E	GP	<p>Specialist - Undertake baseline tests including FBC, LFTs, U&Es, and where appropriate CRP, ESR and TPMT. Pre-treatment assessments FBC, U&E, Creatinine, LFTs, TPMT assay. Monitoring continues as the responsibility of the specialist in accordance with local protocol until the patient is on a stable therapeutic dose.</p> <p>Ongoing monitoring - FBC's and LFT's fortnightly for the first 2 months of treatment, then monthly for 2 months, then 3 monthly unless toxicity noticed. If a dose change occurs repeat FBC's and LFT's 2 weeks after dose change then as above. U & E and Creatinine should be repeated 6 monthly. CRP / ESR as required to assess response to treatment (this is not for dermatology patients).</p>	<p>National guidance for patients well established on DMARDs is for 3 monthly blood tests – for patients with stable monitoring (defined by specialist) this will be reduced to 6 monthly. This will result in the majority of patients on DMARDs not requiring blood tests for the next 3 months, which will hopefully limit patients infection risk over the peak. Patients will be contacted by the specialist team if their monitoring frequency can be safely reduced & GP will be informed. Patients will be able to refer themselves for DMARD monitoring if there are any new concerns of DMARD side effects.</p> <p>Patients still needing to attend DMARD monitoring with no frequency reduction include:</p> <ul style="list-style-type: none"> -Patients on monitoring more often than 3 monthly -Any on a particular DMARD/biologic for less than 12 months -Patients with renal/liver/white cell abnormalities sufficient to have warranted an increase in monitoring to less than 3 months -Patients under 16 years old <p>Extra Advice to Primary Care:</p> <ol style="list-style-type: none"> 1. All our patients are advised to continue with their treatment whether it be azathioprine, 6 mercaptopurine, methotrexate or biologics. 2. Patients are advised not to reduce the dose of their regular IBD medications unless advised to do so by their clinician in secondary care. 3. In the event of flare up a shorter course with a low dose of steroid can be used. [Prednisolone or budesonide] 4. Patients can use the IBD hotline if they have any queries. Unlike in the past we have prioritised the hotline service and therefore patients and GP can expect a fairly rapid response to their query. At the moment we are getting approximately 80 calls per day. 5. The IBD MDT is still running every week but with limited participation. 6. Newer treatment are not being commenced unless we believe it will make a marked difference to the patient. 7. The biologics infusion is continuing as normal <p>RWT: Where DMARD use has been successful and stable for longer than 12 months, the maximum interval between monitoring is 3 monthly. Do not consider extending the interval if patient has:</p> <ul style="list-style-type: none"> • poor renal function with CKD ≤ 3 • severe liver disturbance or abnormal liver results due to DMARDs within previous 3 months • severe abnormal WBC results due to DMARDs within previous 3 months • prescribed interacting medication e.g. PPIs, NSAIDs
Ciclosporin for autoimmune rheumatic disease	Autoimmune Rheumatic Diseases	AMBER E - Derby ESCA	GP/C	Ciclosporin levels, where appropriate remain under the hospitals responsibility Baseline and 2 weekly until on a stable dose for at least 6 weeks • FBC • ALT and/or AST and albumin • U&E including Creatinine/ calculated GFR • Blood pressure • Glucose monitoring – HBA1C (only 1 test required during titration and 3 month period) Page 4 of 7 Annually review the patient and advise the GP promptly on when to adjust the dose, stop treatment or consult with the specialist. GP responsibility monitoring schedule In patients following the 6 weeks of dose stability, conduct monthly monitoring thereafter for duration of treatment • FBC • ALT and/or AST and albumin • U&E including Creatinine/ calculated GFR • Blood pressure • Glucose monitoring – HBA1C (3 monthly) Patients who have been stable for 12 months can be considered for reduced frequency of monitoring on an individual patient basis. Monthly monitoring has been locally agreed. Longer interval monitoring is by exception liaising directly with consultant	RWT HOSPITAL ONLY SINCE 2017 •In stable patients consider extending the monitoring interval to between 6 to 8 weeks with specialist advice
Ciclosporin renal transplant	Immunosuppressants	AMBER E - no ESCA listed Derby ESCA	C	Ciclosporin levels, where appropriate remain under the hospitals responsibility Baseline and 2 weekly until on a stable dose for at least 6 weeks • FBC • ALT and/or AST and albumin • U&E including Creatinine/ calculated GFR • Blood pressure • Glucose monitoring – HBA1C (only 1 test required during titration and 3 month period) Page 4 of 7 Annually review the patient and advise the GP promptly on when to adjust the dose, stop treatment or consult with the specialist. GP responsibility monitoring schedule In patients following the 6 weeks of dose stability, conduct monthly monitoring thereafter for duration of treatment • FBC • ALT and/or AST and albumin • U&E including Creatinine/ calculated GFR • Blood pressure • Glucose monitoring – HBA1C (3 monthly) Patients who have been stable for 12 months can be considered for reduced frequency of monitoring on an individual patient basis. Monthly monitoring has been locally agreed. Longer interval monitoring is by exception liaising directly with consultant	<p>UHNM renal repatriation should be complete, any issues for UHNM email nstccg.staffsmedicineoptimisationqueries@nhs.net.</p> <p>RWT HOSPITAL ONLY •In stable patients consider extending the monitoring interval to between 6 to 8 weeks with specialist advice</p> <p>For Out of Area Provider transplant patients in the first year following transplant should be prioritised for monitoring. Seek specialist advice for individual patient information on monitoring.</p>
Denosumab	Drugs affecting bone metabolism	Amber (Ricad)	GP	check calcium and renal function prior to injection	RWT: Continue as normal as per RICAD check calcium and renal function prior to injection, 60mg every 6 months. Denosumab injection has a quick 'on and off' effect therefore injections should not be delayed.

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Donepezil	Acetylcholinesterase Inhibitor	AMBER-E	GP	Specialist team: Monitor for effectiveness at least once every 12 months (using cognitive, global, functional and behavioural assessment) as clinically appropriate. Monitor weight at least every 12 months as part of annual review and holistic care plan. Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring. Unless an individual arrangement between a GP and specialist service team can be agreed for patient due to their particular circumstance. GP- Monitor treatment : As cholinesterase inhibitors have been associated with weight loss, weight should be monitored on a regular basis. Patients at increased risk for developing ulcers, e.g. those with a history of ulcer disease or those receiving medicines which will increase risk of bleeding e.g. non-steroidal anti-inflammatory drugs(NSAIDs), aspirin, anticoagulants, selective serotonin reuptake inhibitors (SSRIs), should be monitored for symptoms of peptic ulcer disease or gastrointestinal bleeding, or prophylactic prescribing of a gastro-protectant considered. Contact the specialist team between specialist's yearly reviews if there are any concerns which may need earlier attention.	MPFT Led Monitoring: No specific monitoring in ESCA
Eplerenone	Aldosterone Antagonist	AMBER	GP	TDM at 6 months then every 3 to 6 months	RWT: Initiation: Baseline bloods in secondary care. Liaise with specialist team (likely cardiology) if immediate up-titration is required. Check renal function and potassium 7-10 days after dose increase, otherwise defer until lockdown restrictions are lifted.Maintenance: If pattern of stable blood chemistry, then patients can be deferred for 6- 12 months. Discuss dose increase with specialist.
Galantamine	Acetylcholinesterase Inhibitor	AMBER E	GP	Specialist team: Monitor for effectiveness at least once every 12 months (using cognitive, global, functional and behavioural assessment) as clinically appropriate. Monitor weight at least every 12 months as part of annual review and holistic care plan. Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring. Unless an individual arrangement between a GP and specialist service team can be agreed for patient due to their particular circumstance. GP- Monitor treatment : As cholinesterase inhibitors have been associated with weight loss, weight should be monitored on a regular basis. Patients at increased risk for developing ulcers, e.g. those with a history of ulcer disease or those receiving medicines which will increase risk of bleeding e.g. non-steroidal anti-inflammatory drugs(NSAIDs), aspirin, anticoagulants, selective serotonin reuptake inhibitors (SSRIs), should be monitored for symptoms of peptic ulcer disease or gastrointestinal bleeding, or prophylactic prescribing of a gastro-protectant considered. Contact the specialist team between specialist's yearly reviews if there are any concerns which may need earlier attention.	MPFT led monitoring. No specific monitoring in ESCA
Hydroxychloroquine	Autoimmune Rheumatic Diseases	AMBER		annual eye assessment (ideally including optical coherence tomography) if continued for ≥5 years (see RCO advice) no other routine monitoring required	Consider suspending annual eye assessment with ophthalmologist advice
Lanthanum for CKD	Phosphate - binding agents	AMBER	GP	No local advice	No local advice
Lefunomide	Autoimmune Rheumatic Diseases	AMBER E		Specialist led baseline, initiation, stabilisation and then every 3 months. FBC, LFTs, U&Es, Albumin, weight and BP.	National guidance for patients well established on DMARDs is for 3 monthly blood tests – for patients with stable monitoring (defined by specialist) this will be reduced to 6 monthly. This will result in the majority of patients on DMARDs not requiring blood tests for the next 3 months, which will hopefully limit patients infection risk over the peak Patients will be contacted by the rheumatology team if their monitoring frequency can be safely reduced & the GP will be informed. Patients will be able to refer themselves for DMARD monitoring if there are any new concerns of DMARD side effects Patients still needing to attend DMARD monitoring with no frequency reduction include: -Patients on monitoring more often than 3 monthly -Any on a particular DMARD/biologic for less than 12 months -Patients with renal/liver/white cell abnormalities sufficient to have warranted an increase in monitoring to less than 3 months -Patients on methotrexate and leflunomide in combination -Patients under 16 years old RWT: In stable patients consider extending the monitoring interval to between 6 to 8 weeks with specialist advice, no more than a 3 monthly interval. Do not consider extending the monitoring interval on BP measurement: • if BP is elevated or not stable • poor renal function with CKD ≤3 • severe liver disturbance or abnormal liver results due to DMARDs within previous 3 months • severe abnormal WBC results due to DMARDs within previous 3 months • prescribed interacting medication e.g. PPIs, NSAIDs
Lisdexamfetamine children and adolescents	Drugs for attention deficit hyperactivity disorder	AMBER E	GP	As appropriate, on-going monitoring, using centile and growth charts, monitor the patients blood pressure and pulse (eg: before and after each dose change and 6 monthly) and growth parameters (height and weight minimum 6 monthly) and psychiatric symptoms.	MPFT led monitoring. Individualised advice, dependant on when patient was last seen. CAMHS prescriber will offer telephone advice. Seen in last 9 months with no reported concerns- GP can continue prescribing the medication.
Lisdexamfetamine in adults	Drugs for attention deficit hyperactivity disorder	AMBER E	GP	Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring.Weight - Weight to be measured 6th month after initiation and six monthly thereafter. Heart rate and Blood pressure - Chart before and after each dose change and routinely every six months.	MPFT Led Monitoring :Individualised advice, dependant on when patient was last seen Seen in last 9 months with no reported concerns- GP can continue prescribing the medication. Patients with home BP monitor may be reviewed remotely rather than delay BP check.

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Lithium	Antimanic Drugs	AMBER-E	GP	Baseline tests will be the responsibility of the specialist before transfer to shared care. GP - Specific monitoring agreed with the specialist U&Es (including calcium) 6 monthly, Serum creatinine 6 monthly, BP/ weight/ pulse/urine dipstick 12 monthly, TFTs (T4/TSH) 6 monthly	MPFT led monitoring. No change to monitoring.
Mercaptopurine for inflammatory bowel disease	Chronic bowel disorders	AMBER E on SS formulary no ESCA on front page - Derby - ESCA on their formulary	GP	Annually review the patient and advise the GP promptly on when to adjust the dose, stop treatment or consult with the specialist. *Patients on any one these medicines usually require FBC, CrCl or calculated GFR, ALT and/or AST, and albumin monitored every 3 months	<p>Consultant Led Monitoring: National guidance for patients well established on DMARDs is for 3 monthly blood tests –for patients with stable monitoring (defined by specialist) this will be reduced to 6 monthly This will result in the majority of patients on DMARDs not requiring blood tests for the next 3 months, which will hopefully limit patients infection risk over the peak. Patients will be contacted by the gastroenterology team if their monitoring frequency can be safely reduced & GP will be informed. Patients will be able to refer themselves for DMARD monitoring if there are any new concerns of DMARD side effects.</p> <p>Patients still needing to attend DMARD monitoring with no frequency reduction include:</p> <ul style="list-style-type: none"> -Patients on monitoring more often than 3 monthly -Any on a particular DMARD/biologic for less than 12 months -Patients with renal/liver/white cell abnormalities sufficient to have warranted an increase in monitoring to less than 3 months -Patients under 16 years old <p>Extra Advice to Primary Care:</p> <ol style="list-style-type: none"> 1. All our patients are advised to continue with their treatment whether it be azathioprine, 6 mercaptopurine, methotrexate or biologics. 2. Patients are advised not to reduce the dose of their regular IBD medications unless advised to do so by their clinician in secondary care. 3. In the event of flare up a shorter course with a low dose of steroid can be used. [Prednisolone or budesonide] 4. Patients can use the IBD hotline if they have any queries. Unlike in the past we have prioritised the hotline service and therefore patients and GP can expect a fairly rapid response to their query. At the moment we are getting approximately 80 calls per day. 5. The IBD MDT is still running every week but with limited participation. 6. Newer treatment are not being commenced unless we believe it will make a marked difference to the patient. 7. The biologics infusion is continuing as normal <p>RWT Where DMARD use has been successful and stable for longer than 12 months, the maximum interval between monitoring is 3 monthly. Do not consider extending the interval if patient has:</p> <ul style="list-style-type: none"> • poor renal function with CKD \leq 3 • severe liver disturbance or abnormal liver results due to DMARDs within previous 3 months • severe abnormal WBC results due to DMARDs within previous 3 months
Mesalazine	Aminosalicylate	AMBER	GP	U&Es, renal function & LFTs prior to treatment & every 3 months for first year then every 6 to 12 months depending on person's risk factors. Discuss with specialist if renal function declines with a view to STOP. AST, ALT > twice upper limit, withhold and discuss with specialist. Counsel patients to report immediately signs of unexplained bleeding, bruising, purpura, anaemia, fever or sore throat.	No local advice
Methotrexate	Autoimmune Rheumatic Diseases Chronic bowel disorders (Inflammatory bowel disease) Inflammatory skin disease	AMBER-E	GP	<p>Pre-treatment investigations (specialist): FBC, LFT's, U&E, Chest x-ray unless done in previous 3 months. Pulmonary function tests and chest HRCT should be considered in selected patients. DERMATOLOGY ONLY - Serum Pro-Collagen III</p> <p>Monitoring continues as the responsibility of the specialist in accordance with local protocol until the patient is on a stable therapeutic dose</p> <p>Ongoing monitoring:</p> <p>Rheumatology - FBC, LFT and U&E's two weekly for twelve weeks then monthly thereafter. Two weekly bloods must be resumed if dose increased or when results are abnormal. In addition ESR should be monitored every three months for disease progression.</p> <p>Dermatology - FBC, LFT's, creatinine and U&E's every 2-3 months once stabilised. P111NP may also be needed for psoriasis patients both at baseline and 3 monthly.</p> <p>Gastroenterology - the BSG advises monthly FBC and LFTs when treating IBD.</p>	<p>National guidance for patients well established on DMARDs is for 3 monthly blood tests –for patients with stable monitoring (defined by specialist) this will be reduced to 6 monthly. This will result in the majority of patients on DMARDs not requiring blood tests for the next 3 months, which will hopefully limit patients infection risk over the peak</p> <p>Patients will be contacted by the specialist team if their monitoring frequency can be safely reduced & the GP will be informed. Patients will be able to refer themselves for DMARD monitoring if there are any new concerns of DMARD side effects</p> <p>Patients still needing to attend DMARD monitoring with no frequency reduction include:</p> <ul style="list-style-type: none"> -Patients on monitoring more often than 3 monthly -Any on a particular DMARD/biologic for less than 12 months -Patients with renal/liver/white cell abnormalities sufficient to have warranted an increase in monitoring to less than 3 months -Patients on methotrexate and leflunomide in combination <p>RWT: Where DMARD use has been successful and stable for longer than 12 months, the maximum interval between monitoring is 3 monthly.</p> <p>Do not consider extending the interval if patient has:</p> <ul style="list-style-type: none"> • poor renal function with CKD \leq 3 • severe liver disturbance or abnormal liver results due to DMARDs within previous 3 months • severe abnormal WBC results due to DMARDs within previous 3 months • prescribed interacting medication e.g. PPIs, NSAIDs <p>UHNM: Consultant Led Monitoring! If issues arise with access to blood tests, a small number of very stable long term patients will move to 3 monthly blood testing. Any change to a patient's monitoring interval will be communicated to the GP by the specialist.</p>
Methylphenidate adults	Drugs for attention deficit hyperactivity disorder	AMBER-E	GP	Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring. Weight - Weight to be measured 6th month after initiation and six monthly thereafter. Heart rate and Blood pressure - Chart before and after each dose change and routinely every six months.	MPFT Led Monitoring :individualised advice, dependant on when patient was last seen Seen in last 9 months with no reported concerns- GP can continue prescribing the medication. Patients with home BP monitor may be reviewed remotely rather than delay BP check.
Methylphenidate children and adolescents	Drugs for attention deficit hyperactivity disorder	AMBER-E	GP	As appropriate, on-going monitoring, using centile and growth charts, monitor the patients blood pressure and pulse (eg: before and after each dose change and 6 monthly) and growth parameters (height and weight minimum 6 monthly) and psychiatric symptoms.	MPFT Led Monitoring: Individualised advice, dependant on when patient was last seen. CAMHS prescriber will offer telephone advice.

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Olanzapine	Antipsychotic 2nd Gen	AMBER E	GP	Once the patient condition and treatment has been stable for 3 months the GP can be invited to take over the prescribing and element of monitoring if required under a shared care agreement - Prior to initiation = baseline All: f- Glucose, HbA1c f- Lipid (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), U&Es, LFTs, FBC, pulse & BP, BMI, waist circumference, Prolactin, ECG (only if CV disease or at high risk unless in-patient), assessment of movement disorders, nutritional status, diet and level of exercise, 1 month - All: BMI Clozapine & Olanzapine: f- glucose, HbA1c , 3 months - All: f-Lipid, BMI, pulse and BP, f-glucose, HbA1c , 12 months - All: f-Glucose, HbA1c f- Lipids, BP, BMI, waist circumference, After first year - Annually- All: f-Glucose, HbA1c f-Lipids (>40 years), pulse & BP, BMI, waist circumference, Prolactin, * adherence and movement disorders, physical examination including CV risk assessment Quetiapine: additionally TFTs Clozapine & Olanzapine: f- glucose & HbA1c every 6 months, Additional testing requirement to annual All- in children & adolescents: BMI 6-monthly	MPFT led monitoring: baseline 3 monthly monitoring will be replaced by 6 monthly monitoring and fasting blood glucose will follow at 6 months.
Penicillamine	Autoimmune Rheumatic Diseases	AMBER-E	GP	Pre-treatment investigations: FBC LFT's Creatinine Urinary dipstick Monitoring continues as the responsibility of the specialist in accordance with local protocol until the patient is on a stable therapeutic dose.Ongoing monitoring: FBC and urinalysis every 2 weeks until dose stable for 3 months and monthly thereafter.Patient should be asked about the presence of rash or ulceration at each visit and monitored where necessary.CRP / ESR may be done every 3 months.	National guidance for patients well established on DMARDs is for 3 monthly blood tests – for patients with stable monitoring (stable status deemed by the specialist team) this will be reduced to 6 monthly This will result in the majority of patients on DMARDs not requiring blood tests for the next 3 months, which will hopefully limit patients infection risk over the peak Patients will be contacted by the rheumatology team if their monitoring frequency can be safely reduced Patients will be able to refer themselves for DMARD monitoring if there are any new concerns of DMARD side effects Patients still needing to attend DMARD monitoring with no frequency reduction include: -Patients on monitoring more often than 3 monthly -Any on a particular DMARD/biologic for less than 12 months -Patients with renal/liver/white cell abnormalities sufficient to have warranted an increase in monitoring to less than 3 months -Patients on methotrexate and leflunomide in combination -Patients under 16 years old RWT Hospital Only. Where DMARD use has been successful and stable for longer than 12 months, consider extending the monitoring interval to 3 months. Do not consider extending the interval if patient has: * poor renal function with CKD ≤ 3 * severe liver disturbance or abnormal liver results due to DMARDs within previous 3 months * severe abnormal WBC results due to DMARDs within previous 3 months * prescribed interacting medication e.g. PPIs, NSAID
Phenytoin	Antiepileptic	AMBER	GP	Routine monitoring not recommended but NICE suggest FBC, U&Es, LFTs, Vit D & other tests for bone metabolism every 2 to 5 years in adults (enzyme inducing). Doses to be adjusted on the basis of plasma-drug concentration monitoring.	If patients are stable and no signs/symptoms defer for 6-12 months
Propylthiouracil	Antithyroids	AMBER	GP	On initiation (consultant) TFT, LFTs, renal function and WBC. TFTs every 1 to 3 months until stable. Monitor for signs of hepatotoxicity especially during first 6 months. Associated with rare cases of neutropenia and agranulocytosis due to bone marrow depression. Patient advice- report symptoms of infection especially sore throat	No local advice
Quetiapine	Antipsychotic 2nd Gen	AMBER E	GP	Once the patient condition and treatment has been stable for 3 months the GP can be invited to take over the prescribing and element of monitoring if required under a shared care agreement - Prior to initiation = baseline All: f- Glucose, HbA1c f- Lipid (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), U&Es, LFTs, FBC, pulse & BP, BMI, waist circumference, Prolactin, ECG (only if CV disease or at high risk unless in-patient), assessment of movement disorders, nutritional status, diet and level of exercise, 1 month - All: BMI Clozapine & Olanzapine: f- glucose, HbA1c , 3 months - All: f-Lipid, BMI, pulse and BP, f-glucose, HbA1c , 12 months - All: f-Glucose, HbA1c f- Lipids, BP, BMI, waist circumference, After first year - Annually- All: f-Glucose, HbA1c f-Lipids (>40 years), pulse & BP, BMI, waist circumference, Prolactin, * adherence and movement disorders, physical examination including CV risk assessment Quetiapine: additionally TFTs Clozapine & Olanzapine: f- glucose & HbA1c every 6 months, Additional testing requirement to annual All- in children & adolescents: BMI 6-monthly	MPFT led monitoring: baseline 3 monthly monitoring will be replaced by 6 monthly monitoring and fasting blood glucose will follow at 6 months.

Drugs in Class	BNF or ESCA Classification	South Formulary Status (QHB & MPFT for ESCAs)	GP or Consultant Monitoring	SOUTH ESCA Guidance or National Monitoring Advice	Interim COVID-19 Shared Care Drug Monitoring Advice for Patients Not Known or Suspected to Have COVID-19 in agreement with UHNM, MPFT & UHDB, RWT and Walsall
Risperidone	Antipsychotic 2nd Gen	AMBER E	GP	Once the patient condition and treatment has been stable for 3 months the GP can be invited to take over the prescribing and element of monitoring if required under a shared care agreement - Prior to initiation = baseline All: f- Glucose, HbA1c f- Lipid (total cholesterol, HDL-cholesterol, LDL-cholesterol, triglycerides), U&Es, LFTs, FBC, pulse & BP, BMI, waist circumference, Prolactin, ECG (only if CV disease or at high risk unless in-patient), assessment of movement disorders, nutritional status, diet and level of exercise, 1 month - All: BMI Clozapine & Olanzapine: f- glucose, HbA1c, 3 months - All: f-Lipid, BMI, pulse and BP, f-glucose, HbA1c, 12 months - All: f-Glucose, HbA1c f- Lipids, BP, BMI, waist circumference, After first year - Annually- All: f-Glucose, HbA1c f-Lipids (>40 years), pulse & BP, BMI, waist circumference, Prolactin,* adherence and movement disorders, physical examination including CV risk assessment Quetiapine: additionally TFTs Clozapine & Olanzapine: f- glucose & HbA1c every 6 months, Additional testing requirement to annual All- in children & adolescents: BMI 6-monthly	MPFT led monitoring: baseline 3 monthly monitoring will be replaced by 6 monthly monitoring and fasting blood glucose will follow at 6 months.
Rivastigmine	Acetylcholinesterase Inhibitor	AMBER E	GP	Specialist team: Monitor for effectiveness at least once every 12 months (using cognitive, global, functional and behavioural assessment) as clinically appropriate. Monitor weight at least every 12 months as part of annual review and holistic care plan. Usually once the patient condition and treatment has been stable for 3 months the GP can be invited to take over an element of monitoring. Unless an individual arrangement between a GP and specialist service team can be agreed for patient due to their particular circumstance. GP- Monitor treatment : As cholinesterase inhibitors have been associated with weight loss, weight should be monitored on a regular basis. Patients at increased risk for developing ulcers, e.g. those with a history of ulcer disease or those receiving medicines which will increase risk of bleeding e.g. non-steroidal anti-inflammatory drugs(NSAIDs), aspirin, anticoagulants, selective serotonin reuptake inhibitors (SSRIs), should be monitored for symptoms of peptic ulcer disease or gastrointestinal bleeding, or prophylactic prescribing of a gastro-protectant considered. Contact the specialist team between specialist's yearly reviews if there are any concerns which may need earlier attention.	MPFT led monitoring. No specific monitoring in ESCA
Sulfasalazine	Aminosalicilate Autoimmune rheumatology disorders Chronic bowel disorders	AMBER E	GP	Pre-treatment assessment - FBC including differential WBC,LFT, Renal function (including urinalysis).Monitoring continues as the responsibility of the specialist in accordance with local protocol until the patient is on a stable therapeutic dose.On-going monitoring FBC and LFT's TWO WEEKS for the first 3 months of therapy. A reduction in monitoring frequency may be considered at a later date. Renal function MONTHLY for the first three months, thereafter if clinically indicated. Patient should be asked about the presence of rash or oral ulceration at each visit. Following dose changes Repeat FBC, LFT one month after dose increases, if stable revert to usual monitoring regime. CRP/ESR may be done every 3 months (this is not done for dermatology patients)	• After 12 months, no routine monitoring required unless patient is at high risk of toxicity in which case monitoring may be more frequent RWT: No change to the existing monitoring regimen is recommended. Any change in dose follow ESCA
Valproate	Antiepileptic	AMBER	GP	Monitor BMI after 6 months. Regular blood level monitoring not recommended as routine. For bipolar disorder- BP, pulse, FBG, HbA1c & blood lipid profile	N/A