

Primary Care Services

Medication Monitoring in Primary Care Version 1.0

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Version Control Summary

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1.0	April 2021	Louise Carr	Based on: Suggestions for Drug Monitoring in Adults in Primary Care, Specialist Pharmacy Service, September 2020 Nigel's surgery 84: Managing high risk medicines in general practice

Contents Page	
Section	Page
Executive Summary	2
1. Medication and Parameters	3
2. The Repeat Template	4
3. Monthly Searches	5
4. Non-compliance	5
5. Example Patient Communication	7
6. Eclipse	8
7. Review	8

Executive Summary

For the safe on going prescribing of medication in primary care, any required monitoring as advised by National and Local guidelines must be undertaken by the surgery. As the legal responsibility for ensuring patient safety rests with the Clinician signing the prescription, it is essential that the repeat prescription process within the surgery ensures that medication cannot be issued without the necessary blood tests and observations haven been taken and reviewed. This can be achieved through ensuring medication on the repeat prescription template is authorised appropriately and running prescribing system searches monthly to identify patients with overdue monitoring.

This document details medications for which blood monitoring is required, along with the parameters and frequency, and defines the processes by which patients identified by system searches are communicated with. It also gives details of the steps the surgery should take in the event of patient non-compliance with monitoring, to manage both the risk from the non-supply of medication and risk from prescribing medication which has not been adequately monitored.

1. Medication and Parameters

The following table defines medications for which blood monitoring is required, along with the parameters and frequency.

Within this group of medications there are those defined by 'high risk' as failure to comply with monitoring requirements, even if in the short term, can lead to significant patient harm. These medications include Disease Modifying Anti-Rheumatic Drugs (DMARD) prescribed as part of a shared care protocol with secondary care, warfarin and lithium serum drug level. A red asterisk indicates the high-risk medications*

Medication	Monitoring needed
ACEi/ARB including Sacubitril/Valsartan	U+Es every 12 months if prescribed for hypertension U+Es every 6 months if prescribed for heart failure
Amiodarone/Dronedarone	TFTs, LFTs and U+Es every 6 months Chest x-ray and ECG annually
Antipsychotic monitoring (excluding clozapine) + bipolar medication	U+Es, FBC, HbA1c, lipids, plasma glucose (preferably fasting), prolactin (not aripiprazole, clozapine, quetiapine, olanzapine), LFTs (not amisulpride, sulpiride) every 12 months Weight, waist circumference, BP, pulse and ECG every 12 months (QT prolongation >400ms for women >470ms for men review and stop if >500ms)
Azathioprine *	As per shared care protocol Minimum: FBC, U+E and LFT every 3 months
Carbimazole	TFTs every 3 months
Ciclosporin*	As per shared care protocol Minimum: FBC, U+E and LFT every 3 months
Corticosteroids - oral long term	U+Es, Triglyceride, BP and BMI every 12 months Hba1c every 3 months
Diuretic	U+Es every 6 months
Hydroxychloroquine	Annual eye test after 5 years treatment
Leflunomide*	As per shared care protocol (BT and BP monitoring) Minimum: BP, FBC, U+E and LFT every 3 months
Levothyroxine	TFTs every 12 months
Lithium*	TFTs every 6 months Drug levels every 3 months for the first year then every 6 months Calcium every 12 months
Mercaptopurine*	As per shared care protocol Minimum: FBC, U+E and LFT every 3 months
Mesalazine/ Balsalazide/ Olsalazine	U+E and FBC every 12 months
Metformin	U+E every 12 months
Methotrexate*	As per shared care protocol Minimum: FBC, U+E and LFT every 3 months
Mycophenolate*	As per shared care protocol Minimum: FBC, U+E and LFT every 3 months

NSAIDs	If over 65 yrs. old, U+Es needed every 12 months
DOACs	Creatinine Clearance (Cockcroft-Gault equation) every 12 months if previous crcl >60ml/min, every 6 months if previous crcl 30-60ml/min, every 3 months if previous crcl 15-30ml/min Annual height and weight FBC and LFTs every 12 months CHADs-Vasc and HAS-BLED every 12 months if for AF
Pioglitazone	LFTs every 12 months
Propylthiouracil	TFTs every 3 months
SGLT2	U+Es every 12 months
Spirolactone/Eplerenone (potassium sparing diuretic)	U+Es and renal function every 6 months If with ACEi/ARB: potassium and creatinine monthly for first 3 months, then 3 monthly for a year then 4 monthly
Sulfasalazine*	As per shared care protocol Minimum: FBC, U+E, LFT every 3 months until has been on a stable dose for 12 months then no blood monitoring required
Tacrolimus/sirolimus*	As per shared care protocol Minimum: FBC, BP, U+E and LFT and Hba1c every 3 months Cholesterol every 12 months
Theophylline/Aminophylline	Drug level every 12 months
Valproic acid/ Sodium Valproate	LFTs, FBC and BMI every 12 months Pregnancy risk every 12 months (age 12-49)
Warfarin*	As per INR Minimum: INR every 12 weeks

Table 1: Medication requiring blood test monitoring

2. The Repeat Template

When initiating medication listed in table 1, or taking on the prescribing responsibility from secondary care, the patient must be informed of what monitoring is required, why it is necessary and what action will be taken in the event of non-compliance with monitoring.

When adding the medication to the repeat prescription template, the frequency of blood test monitoring should be documented on script notes as this can vary between patients taking the same medication. If appropriate for the patient, the date of the next blood test due can be added to the directions to support them with compliance. The review date/count must be set no longer that date of which the next blood test is due. This will prevent the patient being able to order the medication without having undertaken the appropriate blood monitoring.

When being reviewed, the medication must not be re-authorised to a date/count beyond when the next blood test is due.

If the medication is being prescribed via the GP surgery however the patient is having blood tests at a different provider, this must be documented on the script notes, along with their details. Add the read code 'Medication monitored in secondary care' to the repeat template.

3. Monthly searches

As part of the going monitoring of high-risk medication, monthly searches are carried out to identify patients who are over due their blood test. In order to not overwhelm the blood test service, the following schedule has been devised to spread the request for attendance over the month. The surgery will allocate one clinician who is responsible for ensuring that a search is conducted monthly. This can be a Pharmacy Technician, Clinical Pharmacist or GP. The date of the search will be documented on an excel spreadsheet to evidence completion.

Week of Month	Search
Week 1	ACEi/ARB including Sacubitril/Valsartan, Amiodarone/Dronedarone, Azathioprine, Ciclosporin, Leflunomide, Mercaptopurine, Spironolactone/Eplerenone
Week 2	Carbimazole, Propylthiouracil, Hydroxychloroquine, Mesalazine, sulfasalazine, Pioglitazone, Tacrolimus/sirolimus
Week 3	Levothyroxine, Diuretic, Methotrexate, Theophylline/Aminophylline, Valproic acid/ Sodium Valproate
Week 4	DOACs, Lithium, Mycophenolate, Corticosteroid

4. Non-Compliance

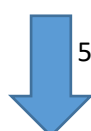
When a patient is identified as being overdue a blood test, it must first be established if they have had a blood test taken by a different provider via checking the documentation on the repeat template or the notes. If a patient has had a blood test within the monitoring parameters time frame from another provider, a copy must be obtained for the patient's record. The repeat template can then be re-authorised until the next blood test is due.

If no record of a blood test can be established, then the following flow charts describe the actions to take.

4A. High Risk Medication

The following flow chart describes the actions to take if a patient is identified as overdue a blood test and they are taking a high-risk medication.

Call the patient to inform them that their blood test is overdue and to arrange for one to be taken. If the patient does not answer after two attempts on each listed number, send a text message if available or letter if not. Reduce the amount supplied to 14 days. Add the read code 'Medication monitoring first letter' to the patient's record. Set a scheduled task for 2 weeks time to prompt a follow up check



Call the patient to inform them that their blood test is overdue and to arrange for one to be taken. If the patient does not answer after two attempts on each listed number, send a text message if available. Send a letter to the patient (in addition to text message if sent). Reduce the amount supplied to 7 days. Add the read code 'Medication monitoring second letter' to the patient's record. Set a scheduled task for a weeks time to prompt a follow up check



Patient hasn't attended

Discuss the situation with Clinical Lead GP or Lead Pharmacist for an individualised strategy to be established.

4B. Other Medication requiring Monitoring

Send a text message, or letter if text message unavailable, to the patient stating that their blood test is overdue and asking them to come in. Add the read code 'Medication monitoring first letter' to the patient's record. A further 28 days of supply can be authorised



Patient hasn't attended

Send a text message, to the patient stating that their blood test is overdue and asking them to come in and that failure to do so will result in further supplies of medication being reduced. Send a letter to the patient (in addition to text message if sent). Add the read code 'Medication monitoring second letter' to the patient's record. A further 28 days of supply can be authorised



Patient hasn't attended

Call the patient to inform them that their blood test is overdue and to arrange for one to be taken. If the patient does not answer after two attempts on each listed number, send a text message if available or letter if not. Reduce the amount supplied to 14 days. Add the read code 'Medication monitoring third letter' to the patient's record.

Patient hasn't attended



Call the patient to inform them that their blood test is overdue and to arrange for one to be taken. If the patient does not answer after two attempts on each listed number, send a text message if available or letter if not. Reduce the amount supplied to 7 days. Add the read code 'Medication monitoring third letter' to the patient's record.



Patient hasn't attended

Discuss the situation with Clinical Lead GP or Lead Pharmacist for an individualised strategy to be established.

5. Examples of patient communication

5A. Text message

Dear, your 12 monthly blood test is now overdue. Please attend our drop in blood clinic, open Monday to Friday 8am to 12pm as soon as possible. Many thanks The Surgery

Dear, your 12 monthly blood test is now overdue. Please book an urgent appointment with a health care assistant. Failure to attend will result in your medication supply being reduced to 14 days on your next prescription. Many thanks The Surgery

Dear, your 3 monthly blood test is now overdue. Please book an urgent appointment with a health care assistant. Your medication has been reduced to a 14 day supply. Failure to attend will result in your medication supply being reduced to 7 days. Many thanks The Surgery

5B. Letter

Dear,

Your routine medication monitoring tests are overdue. Please book an appointment with a health care assistant for a blood test.

Blood tests are required to check that the medication you are taking isn't causing potentially serious side effects. It is there essential for the on going safe prescribing that these blood tests are carried out.

Failure to attend will result in your medication supply being reduced to 14 days.

Yours sincerely

The Surgery

Dear,

Your routine medication monitoring tests are overdue. Please book an appointment with a health care assistant for a blood test.

Blood tests are required to check that the medication you are taking isn't causing potentially serious side effects. It is there essential for the on going safe prescribing that these blood tests are carried out.

Your medication has been reduced to a 14 days supply and failure to attend will result in a further reduction to a 7 day supply.

Yours sincerely

The Surgery

6. Eclipse

If available, the eclipse computer program should be checked daily and red alerts actioned within 48 hours and amber alerts within 7 days. Red and amber alerts advise when there are erroneous blood test results to act on, providing a further safety net for high risk medication monitoring.

7. Review

This policy will be subject to review every three years, or, in light of any changes to the requirements of medication monitoring.