NHS
Cheshire and Wirral Partnership
NHS Foundation Trust

Document level: Trustwide (TW)
Code: MP5
Issue number: 6.41

Clozapine Prescribing and Monitoring Guidelines

Lead executive	Medical Director
Authors details	Deputy Chief Pharmacist - 01244 397494 Senior Clinical Pharmacist - 01244 397355 Medicines Safety Pharmacist - 01244 397494

Type of document	Guidance
Target audience	All CWP staff
Document purpose	The purpose of this guidance is to set out the standards for clinicians, pharmacy service providers, nursing staff and other health care professionals involved in the prescribing, administration and monitoring of clozapine. It covers initiation of clozapine (inpatient and community setting) and continuation of monitoring following initiation.

Approving meeting	Medicines Management Group	Date 30-Jan-20
Implementation date	30-Jan-20	

CWP documents to be read in conjunction with	
MP14	Nicotine Replacement Therapy (NRT) Guidelines

Document change history	
What is different?	Addition of Appendix 8 – MMG approved
Appendices / electronic forms	
What is the impact of change?	

Training requirements	Yes - Training requirements for this policy are in accordance with the CWP Training Needs Analysis (TNA) with Education CWP.

Document consultation	
Clinical Services	Senior Clinical Pharmacist, Clozapine Clinic Nurse, Clinical Pharmacist
Corporate services	MMG Chair & Consultant Psychiatrist, Trust Records & Information Manager, Chief Pharmacist, Deputy Chief Pharmacist
External agencies	Lloyds Pharmacist Manager

Financial resource implications	Yes - increased ECG requirements

External references

1. Taylor, D., Paton, C. and Kapur, S. (2015). The Maudsley Prescribing Guidelines in Psychiatry 12th edition. Chichester: John Wiley & Sons Ltd.
2. Novartis Pharmaceuticals UK Ltd. (2016).Summary of Product Characteristics for Clozaril® [online]. Surrey: Datapharm Communications Limited. Available at https://www.medicines.org.uk/emc/medicine/1277 [Accessed June 18th 2017]

3. Bazire, S. (2016). Psychotropic Drug Directory 2016. Dorsington: Lloyd-Reinhold Communications LLP.
4. Psychosis and schizophrenia in adults: prevention and management NICE Clinical Guidance 178 March 2014

Equality Impact Assessment (EIA) - Initial assessment	**Yes/No**	**Comments**
Does this document affect one group less or more favourably than another on the basis of:		
- Race	No	
- Ethnic origins (including gypsies and travellers)	No	
- Nationality	No	
- Gender	No	
- Culture	No	
- Religion or belief	No	
- Sexual orientation including lesbian, gay and bisexual people	No	
- Age	No	
- Disability - learning disabilities, physical disability, sensory impairment and mental health problems	No	
Is there any evidence that some groups are affected differently?	No	
If you have identified potential discrimination, are there any exceptions valid, legal and/or justifiable?		
N/A		
Is the impact of the document likely to be negative? - If so can the impact be avoided? - What alternatives are there to achieving the document without the impact? - Can we reduce the impact by taking different action?	No N/A N/A N/A	
Where an adverse or negative impact on equality group(s) has been identified during the initial screening process a full EIA assessment should be conducted. If you have identified a potential discriminatory impact of this procedural document, please refer it to the human resource department together with any suggestions as to the action required to avoid / reduce this impact. For advice in respect of answering the above questions, please contact the human resource department.		
Was a full impact assessment required?	No	
What is the level of impact?	Low	

Contents

Quick reference flowchart for INPATIENT Clozapine initiation

For quick reference the guide below is a summary of actions required.

Discuss clozapine treatment with patient (& care if appropriate). Assess patient's smoking status & explain impact and significance to clozapine treatment. Document both discussions.

↓

Use cardio metabolic tool to record baseline weight and waist circumference, temperature, pulse, BP, fasting blood glucose, HbA1C, LFTs, U&Es, lipids & ECG.
Complete clozapine registration forms and fax to drug company.

↓

Medically review the patient prior to starting clozapine, then at least once weekly by doctor.
Add clozapine alert to the electronic patient record.

↓

Carry out the following physical monitoring continuing to use the NEWS Clozapine Titration. Monitoring physical health and side effects booklet and using Appendix 5 on Day 1:
Lying and standing BP, temperature and pulse – 15 minutes before dose, 15 minutes after dose then 1 hour, 2 hours, 3 hours, 4 hours, 5 hours and 6 hours post dose.

↓

**Paper booklets can be found on the inpatient units.*

Carry out the following physical monitoring continuing to use the NEWS Clozapine Titration. Monitoring physical health and side effects booklet and using Appendix 5 on Day 2 – 14 until titration is complete;
Lying and standing BP, temperature and pulse -
15 minutes before morning dose; 4 hours post morning dose
15 minutes before evening dose and 1 hours post dose

↓

Continue routine FBC monitoring (section 2.2). If a patient is due to go on leave, blood sampling must be completed before leave it granted.

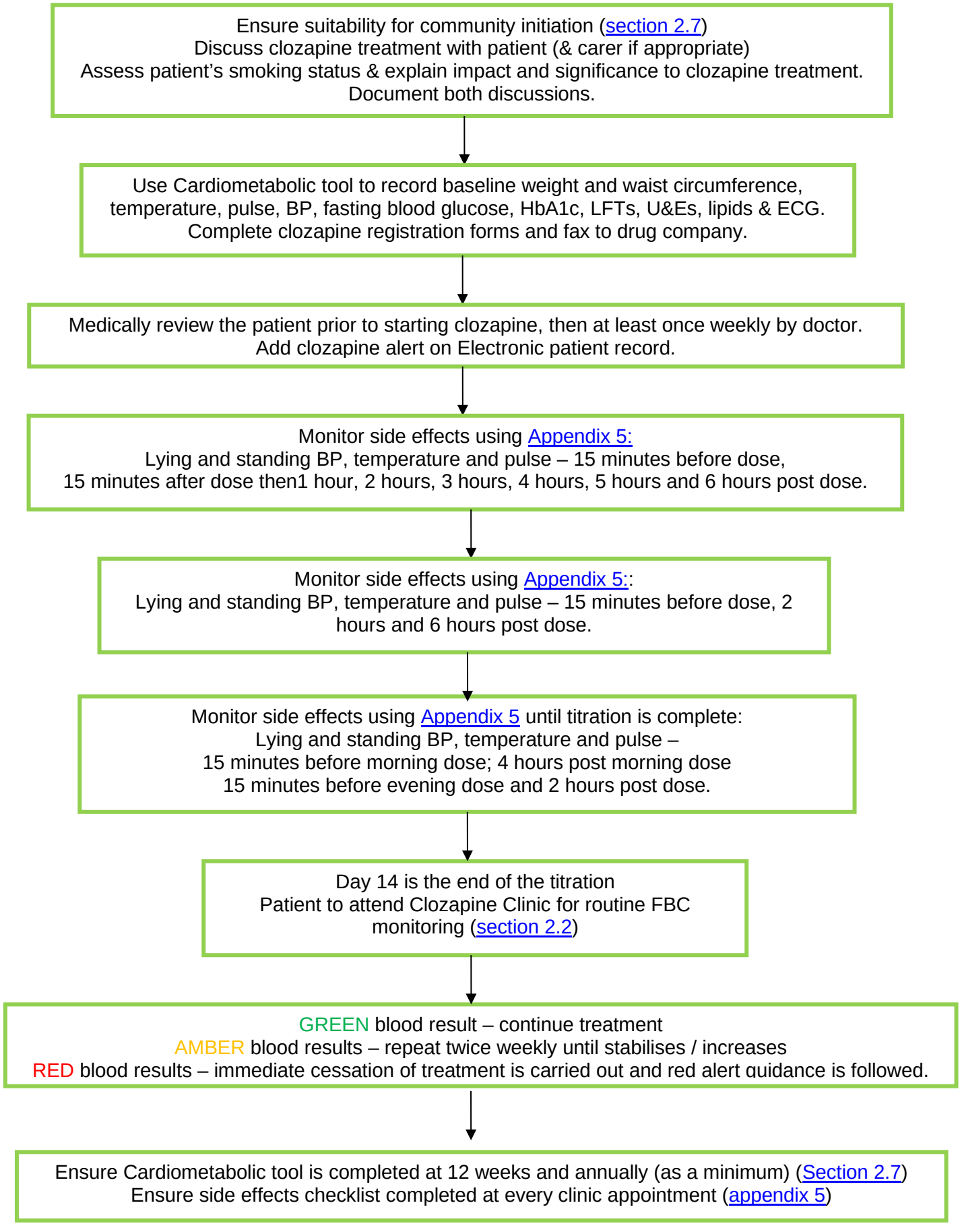
↓

GREEN blood result – continue treatment
AMBER blood results – repeat twice weekly until stabilises / increases
RED blood results – immediate cessation of treatment is carried out and red alert guidance is followed.

↓

Ensure Cardiometabolic tool is completed at 12 weeks and annually (as a minimum) (Section 2.7)
Ensure side effects checklist completed at every clinic appointment (Appendix 5)

Quick reference flowchart for COMMUNITY Clozapine initiation in adults under 65



1. Introduction

The purpose of this guidance is to set out the standards for clinicians, pharmacy service providers, nursing staff and other health care professionals involved in the prescribing, administration and monitoring of clozapine. The policy includes inpatient and community titration of clozapine, monitoring and continuation of treatment.

Patients are often reluctant to be admitted onto an acute psychiatric inpatient unit to start clozapine and furthermore, this impacts on availability of beds. Community initiation of clozapine involves the patient attending a day care facility and being under the care of their healthcare staff or a healthcare professional visiting the patient at home. The same care and clinical monitoring applies for inpatient or community initiation. It is possible to use a combination of inpatient and community initiation for some patients.

Some areas offer the facility for point of care haematological testing (known as POCHI) where results are available within a few minutes; this allows medication to be given out at clozapine clinics. In areas where this is operational there are 2 documents to support this:

- Standard Operating Procedure for the ordering, receipt, storage and supply of pre-dispensed quarantined clozapine by trained nursing staff from the clozapine clinic
- Point of Care Haematological Analysis Document should be used.

Note there are three providers of clozapine and patients can only be registered with one clozapine provider. All patients prescribed Clozapine should have the Clozapine Alert recorded/flagged in electronic patient record

This guideline only applies to patients aged over 18 years.

Before Starting Clozapine

Patient/ carer information and discussion about clozapine.	The patient should be given verbal and written information and the opportunity to discuss clozapine treatment. They must be informed about the need for regular blood testing, possible side effects including weight gain (give advice about diet and the importance of regular exercise), neutropenia, constipation, the initiation process and options within that. Ensure consent has been obtained and documented. Complete prescriber checklist on the electronic patient record
Decide on where clozapine will be initiated	i.e. Inpatient or community setting. If initiating as an inpatient use Appendix 2 If initiating in the community use Appendices 3 &4,
CPMS Registration	The patient must be registered with the Clozaril® Patient Monitoring Service (CPMS) who will allocate a unique CPMS number (which must be used in all communications with them). Registration forms may be obtained by contacting the CPMS on 08457 698269 or on the eCPMS site www.clozaril.co.uk See Appendix 1 for information on use of eCPMS.
Pre-treatment blood tests	A baseline blood sample is required for full blood count; this will register the patient for up to 10 days.
Exclusion criteria	Pregnancy in women of child-bearing potential and breast-feeding as this is cautioned in the SPC and NICE Guidelines 45 Antenatal and Postnatal Mental Health
Pre-treatment Physical Monitoring	Pre-treatment blood samples are also required for: • glucose level (fasting blood glucose and HbA1c) • LFTs

	• U&Es • lipids **The following physical observations are required:** • baseline weight • baseline waist circumference • temperature • pulse • blood pressure (lying and standing) • ECG – to screen for evidence of past myocardial infarction or ventricular abnormality
Medical Review	The patient should be medically reviewed prior to starting clozapine and then on a regular basis (minimum of once a week) by the doctor. Review patient's other prescribed medication which may require review prior to starting clozapine *. If patient prescribed another antipsychotic ensure downwards titration of the dose is included on titration chart.
Communication	Inform clozapine clinic, clinical pharmacist and pharmacy service provider that patient is about to start on clozapine
Using eCPMS	Patient's blood results can be accessed and updated via the eCPMS (www.clozaril.co.uk) in addition to useful information about managing side effects. A user name and password is required to access this site. See Appendix 1 for details

** Concomitant medications – look for possible interactions, e.g. bone marrow suppressants, benzodiazepines, anticholinergics, antihypertensives, alcohol, MAOIs, CNS depressants, highly protein bound drugs, phenytoin, lithium. If you are uncertain about the impact of the Service User's medicine regime please discuss with your Mental Health Pharmacist*

2.1 Requirements for community initiation

Community initiation will be considered on an individual basis and take into consideration the capacity of the HTT and CMHT to facilitate the supervision and monitoring required.
The patient's GP must:

- be informed of the initiation and provided with a copy of the initiation guidelines and supporting information on clozapine and an emergency contact number for the treating team.

The patient must:

- be provided with an emergency contact number for the treating team. There must be a contingency plan in case the patient defaults from visits or becomes non-adherent.

(NB. In patients in whom the interval since the last dose of clozapine exceeds 48 hours, treatment should be re-initiated).

2.1.1 Inclusion criteria for community initiation

All the answers should be YES

- Is the patient likely to be adherent with oral medication and to monitoring requirements?
- Has the patient understood the need for regular physical monitoring and blood tests?
- Has the patient understood the possible side effects and what to do about them? (see section 2.4)
- Is it possible for the patient to be seen every day during the community titration?
- Is the patient able to attend clozapine clinic and collect medication every week?
- Is the patient likely to be able to seek help out-of-hours if they experience potentially serious side-effects (see section 2.4)?
- Does the patient have a supportive family/ carer network with someone available to stay overnight and at weekends during the titration period? Information will be provided to them about clozapine particularly recognition of adverse effects and what to do if they occur

2.1.2 Exclusion criteria for community initiation

- History of seizures, severe renal or cardiac disorders (myocarditis), unstable diabetes, paralytic ileus, blood dyscrasia, neuroleptic malignant syndrome (NMS) or other disorder that increases the risk of serious side effects (initiation with close monitoring in hospital may still be possible)
- Unreliable or chaotic life-style that may affect adherence to the medication or the monitoring regimen
- Significant abuse of alcohol or other drugs likely to increase the risk of side effects (e.g. cocaine)
- Patients over age of 65 or under age of 18 years
- Patients who live alone with no overnight family or carer support during the titration
- Patients whose medicine regime will require complex cross titration due to polypharmacy or interacting medicines. Discuss and check with the locality mental health pharmacy team for further advice and guidance.

In addition to meeting the inclusion and exclusion criteria consideration must be made of the details Appendix 3.

2.2 Starting Clozapine

- Clozapine can be started on any weekday after a green initial blood test is received;
- There are different charts for in-patient and community initiation of clozapine
    - Three standard titration charts (Appendix 2) for in-patient initiation of clozapine:-
        - standard titration to 300mg over 14 days
        - slow titration to 300mg over 28 days for patients suffering from sedation, hypotension or tachycardia
        - titration to 200mg over 20 days for patients over 65.
    - Community titration chart see Appendix 4a. Home Treatment Team should not allow the dose to be increased over the weekend if they are unable to monitor the patient according to the policy.

If the standard charts are not suitable then contact the Clinical Pharmacy Team for advice;

- The appropriate chart should be selected and filled in; in addition for inpatients prescribe clozapine on the in-patient prescription chart and annotate 'see titration chart'
- The pharmacy service provider will supply up to 7 days' supply of clozapine within 10 days from the date of the initial blood test and then at weekly intervals on receipt of a green blood result;
- Bloods are analysed preferably by POCHI as this automatically transmits the results to CPMS. If using local laboratories for analysing bloods the results must be phoned through to CPMS. Alternatively bloods may be sent directly to CPMS for analysis.
  Results are valid for 10 days after initial blood test and must be repeated within seven days of starting treatment. Monday or Tuesday are usually the preferred sample days local clozapine clinics should be contacted to confirm the recommended sampling day in each area.
- CPMS should be contacted to inform them if the patient has been off-treatment or having a re-titration.

2.3 Routine monitoring of full blood count

Clozapine can cause agranulocytosis and granulocytopenia that may result in sepsis and can prove fatal. To safeguard against these, regular blood monitoring is mandatory. The UK Clozaril® Patient Monitoring System (CPMS) was developed to manage this risk. The use of clozapine is restricted to patients, physicians and pharmacists that are registered with CPMS.

A full blood count including white cell count must be checked prior to the commencement of clozapine, and then monitored as follows:

- **Weekly** for at least the first 18 weeks of clozapine treatment

- **Fortnightly** from week 18 to at least week 52 of clozapine treatment
- **Every four weeks** after one year of clozapine treatment with stable blood results and the CPMS agreement
- **After discontinuation** of clozapine monitor at current frequency for at least four weeks after discontinuing

Patients' blood results are classified as green, amber or red.

RESULT	ACTION
GREEN White Blood Count X 10^9 / L > 3.5 Neutrophil Count X 10^9 / L > 2.0	Satisfactory. Clozapine treatment may continue
AMBER White Blood Count X 10^9 / L 3.0 – 3.5 Neutrophil Count X 10^9 / L 1.5 – 2.0	Either White Blood Count or Neutrophil Counts are below acceptable levels. Blood count should be repeated twice weekly until the count stabilises or increases. Advice should be sought from CPMS. Clozapine treatment may continue
RED White Blood Count X 10^9 / L < 3.0 Neutrophil Count X 10^9 / L < 1.5 Platelet Count X 10^9 / L < 50	**Immediate cessation of treatment.** Local blood sampling should be done daily until the patient recovers. Advice should be sought from CPMS. Clozapine supplies should be returned to team base or hospital.

Those patients monitored weekly and where a blood count is the lowest to date, or where a downward trend is detected, will be assessed by CPMS and an extra sample may be requested.

2.4 Monitoring physical health and side effects

- Whilst patients are prescribed Clozapine on inpatient wards / areas staff must record blood pressure (lying and standing), pulse and temperature monitoring during clozapine titration due to hypotension and tachycardia side effects,
- on the NEWS Clozapine Titration Monitoring physical health and side effects booklet from day 1 – day 14.(Persistent tachycardia can also be an indicator of myocarditis or cardiomyopathy which are more serious adverse effects of clozapine.
- Blood pressure, pulse and temperature to be recorded on the ward Clozapine Titration Monitoring physical health and side effects bookletchart or for community initiation on the chart in Appendix 4b.
- The listed observations are included on a poster Appendix 2d (inpatient) or Appendix 4c (community) to be kept with the monitoring records or NEWS (National Early Warning Score) folder as well as being displayed in clinically areas.

2.4.1 Monitoring clozapine plasma levels

It is recommended that plasma monitoring is done minimum annually or more often if clinically indicated.

Please refer to the clozapine and plasma monitoring factsheet at www.clozaril.co.uk for more information on when plasma monitoring is appropriate and interpretation of results.

Kings College Toxicology Department in London provide a clozapine plasma level service. The reference range is 0.35-0.5mg/L. Good therapeutic response is associated with levels above 0.35mg/L clozapine and levels over 1.0mg/L are associated with an increased risk of convulsions.

Use the following link to access the service: http://www.viapath.co.uk/our-tests/clozapine-norclozapine.

The SMOKING status of the patient will significantly affect clozapine levels MP14

2.4.2 Myocarditis

Clozapine is associated with an **increased risk of myocarditis** which has, in rare cases, been fatal. The increased risk of myocarditis is **greatest in the first 2 months of treatment but can occur at any time**.

Myocarditis or cardiomyopathy should be suspected in patients who experience persistent tachycardia at rest, and/or palpitations, arrhythmias, chest pain and other signs and symptoms of heart failure (e.g. unexplained fatigue, dyspnoea, tachypnoea) or symptoms that mimic myocardial infarction.

If myocarditis or cardiomyopathy are suspected, clozapine treatment should be promptly stopped, an ECG performed and the patient immediately referred to a cardiologist. Patients who develop clozapine-induced myocarditis or cardiomyopathy should not be re-exposed to clozapine.

2.4.3 Constipation

Effective treatment or prevention of constipation is essential as death may result.

First 4 months are the highest risk for constipation which usually persists. Advise patients of the risks before starting, screen regularly, ensure adequate fibre, fluid and exercise. Please see Appendix 8 for suggested treatment guidelines (please also consider patient preference). Have a low threshold for adding softening or stimulant laxatives early and review regularly. Stop other medicines that may be contributing (e.g. opiates, iron or high anti-cholinergic burden) and reduce clozapine dose if possible.

2.4.4 Common side effects

Most side-effects are dose-dependent and associated with the speed of titration. They also tend to be most common at the beginning of therapy. If the patient is not tolerating a particular dose, consider decreasing it to one that was tolerated and then increase the dose again but at a slower rate.

The patient's care plan should include monitoring for these side effects and the patient should have

access to a quiet place to sit / lie down and relax should they need to. Monitoring of side effects should be undertaken at every clinic appointment

Below is a table of the most common side effects, this is not a comprehensive list, for more information see the Clozaril® SPC at www.medicines.org.uk or www.clozaril.co.uk (see Appendix 1).

Side effects	Management
If patient has a **raised temperature, sore throat or other infection,** this may be a sign of a low white cell count caused by clozapine	The duty doctor should be informed. A blood test should be taken immediately and analysed locally. If the blood result is satisfactory and the temperature is under 38.5°C, clozapine can be continued. If the temperature is over 38.5°C, consider withholding clozapine until the fever subsides. Paracetamol may be prescribed to treat the fever.
Blood dyscrasias -occur in 4 % patients. These can affect the patient's ability to fight infection. Other drugs which cause blood dyscrasias should not be taken with clozapine e.g. carbamazepine or antipsychotics (particularly long lasting	Blood to be routinely monitored by the Clozaril® Patient Monitoring Service (CPMS). Patient must stop clozapine immediately if they have a "**RED**" blood result.

depots)	
Hypotension	Clozapine has to be initiated gradually. Blood pressure both lying and standing should be monitored (see above). Patient should be advised to stand up slowly to avoid associated dizziness.
Constipation in up to 60% of patients (1)	High-fibre diet. Adequate fluid intake. Review other medication. Bowel movements should be monitored and laxatives prescribed if necessary. Constipation if untreated can lead to paralytic ileus. When constipation is severe the fatality rate is approximately 20-30% (1)
Sedation	Consider adjusting the dose so that a higher proportion of the dose is taken at bedtime – the patient must be advised not to drive if affected (and not at all during initial titration)
Hypersalivation	Hyoscine hydrobromide at a dose of 150micrograms – 300micrograms up to three times daily (as Joy-rides® or Kwells®) can help (unlicensed use). These may cause drowsiness and constipation. Other options are available.
Weight gain	Counselling on diet and exercise on initiation. Regular weight checks.
Dry mouth	Sugar-free chewing gum, or citrus fruit or low calorie drinks may help. An artificial saliva mouth spray is available
Fast heart beat (tachycardia)	Monitor pulse, Doctor must be informed if pulse >100bpm.
Neuroleptic Malignant Syndrome – symptoms include hyperthermia or fever, severe muscle rigidity, with two or more of: diaphoresis, dysphagia, tremor, incontinence, tachycardia, altered BP, altered consciousness, raised Creatinine Kinase level	Doctor called to review patient and perform bloods including creatinine kinase levels immediately.
***Metabolic Syndrome** Impaired glucose tolerance and/or development or exacerbation of diabetes mellitus. On very rare occasions, severe hyperglycaemia, sometimes leading to ketoacidosis/hyperosmolar coma	Check fasting plasma glucose and HbA_{1C} at baseline (then at a minimum of 12 weeks; then annually) * This is a RARE but important side-effect, hence has been included in this list to ensure awareness of it and the monitoring required.

2.5 Discharge planning

The patient must be informed about the effect smoking has on clozapine levels and that they should inform their care co-ordinator or consultant promptly so that any necessary monitoring and dose adjustment can be made. Please refer to the Nicotine Replacement Therapy (NRT) Guidelines for further information regarding the interaction.

2.5.1 Leave or discharge from the inpatient ward

- Prior to discharge if a patient is due to go on leave, blood sampling must be completed before leave is granted
- Before discharge the named nurse should contact the clozapine clinic to allow a visit to be arranged if possible and to ensure patient has details of their nearest sampling venue
- On discharge, the clozapine clinic, clinical pharmacy team and dispensing pharmacy need to be informed of the date of discharge, the date the last blood sample was taken and the sampling venue chosen by the patient

- Sufficient clozapine should be prescribed to last until the next supply is due. The pharmacy service provider should then be sent a new clozapine outpatient prescription to ensure ongoing outpatient supply. This is in **addition** to the discharge prescription
- Check the patient's smoking status and refer to MP14 Nicotine Replacement Therapy (NRT) Guidelines for information on the significant interaction between clozapine and cigarette smoke. Dose adjustment may be necessary
- On discharge the patient should have written information of the next sample date, the times of the clozapine clinic, the next supply date and where to pick up medication
- The General Practitioner needs to receive the 'Clozapine information for General Practitioners' Appendix 6.

2.5.2 Transfer from HTT at end of titration

- CMHT consultant to ensure that a community clozapine prescription has been sent to pharmacy for continuity of supply
- HTT and CMHT to ensure patient knows the next blood sample date and which sampling venue to attend
- If clozapine is not continued inform GP of the change

2.6 Admission or transfer of patients already on clozapine

CPMS must be notified of any changes to the responsible clinician.

Admitted/transferred patient	Staff group responsible for action	Action required
Patient transferred between wards at CWP	Ward Staff	Inform Pharmacy provider and CPMS of change of location (and sample address if appropriate). Send clozapine supply with patient.
Patient from local area admitted	Care co-ordinator	Advise clozapine clinic Advise pharmacy and confirm patient's dose
Patient transferred from out of area	Ward Staff	Contact CPMS (or other monitoring service if on different brand) to ascertain CPMS number, monitoring frequency and date of last blood test. Inform pharmacy service provider and clinical pharmacy team
Patient transferred to another mental health hospital out of area	Pharmacy provider on receipt of discharge prescription Ward staff	Ensure patient has sufficient clozapine to last until next blood test. Inform CPMS (or other monitoring service if on different brand) Inform accepting hospital of clozapine registration details & monitoring
Patient transferred to acute hospital	Ward staff	Ensure clozapine details included on Transfer of Care SBAR Send clozapine supply with patient.

2.7 Monitoring of patients on clozapine

The cardiometabolic tool must be completed at baseline, 12 weeks and annually (as a minimum).

Parameter	**Frequency**
Monitoring FBC	Weekly, fortnightly or four weekly intervals Monitoring must continue throughout treatment and for 4 weeks after complete discontinuation of clozapine
Weight	Baseline Weekly for 1st 6 weeks 12 weeks 1 year Annual
Waist circumference	Baseline Annually
Pulse and blood pressure	Baseline as per titration guidelines 12 weeks 1 year Annual
Temperature	Baseline as per titration guidelines
Fasting blood glucose and HbA_{1c}	Baseline 12 weeks 1 year Annual
Blood lipid levels	Baseline 12 weeks 1 year Annual
Side effects (Appendix 5)	At every clinic appointment
ECG / Assessment of QT Interval	Baseline Post titration Annually To assess any QT prolongation, particularly when clozapine is co-prescribed with other drugs known to affect this. After significant dose increases or if clinically indicated. Patients with high cardiovascular risks may require increased frequency of monitoring
Clozapine plasma levels	Baseline obtained 2 weeks after completing dose titration Then minimum of annually or as clinically indicated e.g. change in smoking status

Side effect monitoring forms to be completed on the electronic patient record as per (Appendix 5)

2.8 Missed doses

If clozapine is missed for more than 48 hours the dose must be re-titrated from 12.5mg/day, the Clinical Pharmacy team can advise on re-titration. Contact the clozapine monitoring service to inform

them of the treatment break. Additional monitoring may be required if the break is more than 4 days, advice will be given by the monitoring service.

2.9 Patient's non-attendance at clozapine clinic

The Clinic Nurse/s will:

- Inform the patient's Care Coordinator/Team Manager that the patient did not attend the clinic. The responsibility for the blood monitoring for this sample is then the responsibility of the Care Coordinator/Team Manager
- Document non-attendance in the electronic patient record
- Inform pharmacy provider.

3. Training and resources required

POCHI training:

- Training for operating the near patient testing machine and subsequent registration with Sysmex as an authorised user (or Certified User if 2 Day course completed with Sysmex)
- Working knowledge of Point of Care Haematological Analysis Document

3.1 Duties and responsibilities

Consultant (registered to prescribe clozapine)

- To ensure clozapine is prescribed for a licensed indication and to complete CPMS off label form if not;
- To register patient with monitoring service;
- To prescribe appropriate titration regime and adjust dose according to tolerance;
- To review patient a minimum of once a week in first two weeks;
- To ensure adequate supply is prescribed on discharge/transfer and that prescriptions for continuing supply are sent to pharmacy service provider;
- To send new prescription to pharmacy provider every 6 months or when dose is changed for outpatients receiving clozapine;
- To ensure that the cardiometabolic tool is completed at required intervals

Nursing staff, CMHT & HTT staff

- To monitor mental health, side effects and physical health and to alert prescriber of any concerns;
- To send blood samples to POCHI, local laboratories or to CPMS at appropriate intervals;
- To communicate with pharmacy and clozapine clinic when patient starts clozapine and when they are due to be discharged;
- Also see section 2.6 regarding admission and transfer of patients on clozapine.

Clozapine clinic staff

- To ensure blood monitoring is carried out at appropriate intervals;
- To monitor weight and side effects of clozapine and to alert prescriber of any concerns;
- To alert care coordinator and pharmacy provider if patients do not attend for blood tests;
- To communicate with pharmacy provider any changes to sampling days or local blood samples.
- To ensure that monitoring is completed as detailed in section 2.7

Care Coordinator

- To obtain blood sample and send to CPMS or local laboratory if patient does not attend clozapine clinic;
- To monitor weight and side effects of clozapine and to alert prescriber of any concerns if this is not done in clozapine clinic;
- Also see section 2.5 regarding admission and transfer of patients on clozapine.

Pharmacy service provider

- To dispense clozapine on receipt of prescriptions and in line with routine blood tests

- To contact clozapine clinic and care co-ordinator when amber or red blood results are received.

General Practitioner

- To note that patient is on clozapine and follow guidance offered in Appendix 6

Clinical pharmacy team

- To provide information about clozapine to inpatients /carers;
- To provide information and advice about clozapine treatment to other staff.
- To ensure information provided to General Practitioner when in-patients discharged

Appendix 1 - How to use the e-CPMS (Clozaril®) website www.clozaril.co.uk

The Clozaril® website contains lots of useful information about clozapine and your patients. This guide is intended to get you started using this resource.

Registration forms for new patients or new practitioners can be downloaded from the website (this does not require a log-in)

If you are registered to prescribe Clozaril® you should have a user name and password to access the e-CPMS website. If you have forgotten the password ring the CPMS on 0845 7698269 and they will e-mail it to you. If you are a nurse and would like to be registered for access then ask the consultant if they will fill in the form to register you.

Once you have logged on you can search for information about a particular patient by clicking 'Search' on the left hand side of the screen. By clicking the grey 'Blood History' button at the bottom of this screen you can look at the individual's blood result history and see how long they've been on clozapine, the frequency of the blood monitoring and the date of the last blood test.

If you have some more recent blood test results than those shown on the screen you can enter them by clicking the grey button 'Blood Test Results' and then 'New' button.

By clicking 'Forms' you can access the clozapine plasma assay form & guidance and the patient registration forms. You can also register patients online by clicking 'Enrol patient'.

You can select one of the following topics by first clicking 'UK' on the green bar at the top of the homepage.

Introducing the CPMS
Example Dosage Schedule
Travel Abroad Information
Initiating Clozaril®
Discontinuing Clozaril®
Travel Guidelines for Weekly Patients
Outpatient Initiation of Clozaril®

Please refer to https://www.hcpinfo.clozaril.co.uk/en-gb/downloads for the following important factsheets

Fact sheets

Clozaril® and Anaesthesia
Clozaril® and Cardiovascular Events
Clozaril® and Constipation
Use of Clozaril® in Patients Aged 60 years or over
Clozaril® and Fever
Clozaril® and Hypersalivation
Clozaril® and Liver Function
Clozaril®and Seizures
Clozaril® and Weight Gain
Clozaril® and Eosinophilia
Clozaril® and Plasma Monitoring
Clozaril® and Benign Ethnic Neutropenia
Clozaril® and Compliance
Clozaril®, Diabetes and Hyperglycaemia
Clozaril®, Neutropenia and Agranulocytosis and red alert management
Clozaril® and Gastrointestinal Side Effects
Clozaril® and Lifestyle Considerations
Clozaril® Overdose
Clozaril® and Urinary Incontinence or Urinary Retention
Clozaril® and Benign Ethnic Neutropenia
Clozaril® and Neuroleptic Malignant Syndrome (NMS)

For more information is accessed by clicking 'Information' on the green bar at the top of the screen and selecting the guide you need.

The site is easy to use so explore and become familiar with all the useful information that is available about your patients and clozapine.
The information is taken from the website www.clozaril.co.uk

Appendix 2a - Inpatient Clozapine Starting Regime for Adults (titration to 300mg in 14 days)

This form is to be used in conjunction with the normal prescription sheet.

Patient Name		**NHS Number**	
Ward			

Cautions
Clozapine can cause **postural hypotension** and **tachycardia** and so BP and pulse need to be measured in the initial stages of dose titration. Clozapine can rarely cause **NMS** (Neuroleptic Malignant Syndrome) and it is advisable to monitor temperature on a daily basis initially. Other major side effects include **sedation** and due to this and the possibility of respiratory depression benzodiazepines should be used with caution. **Constipation:** give advice on diet fluids & exercise, be prepared to use laxatives. Dietary advice is necessary in regard to **weight gain** too. **Hypersalivation** can be a problem – see the Clozaril website (www.clozaril.co.uk) under information heading for advice on this and **seizures**.

If titrating another antipsychotic downwards please complete second column

Day	**Date**	**Clozapine**							
		Am		**Pm**		**Am**		**Pm**	
		Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm
1		12.5		-					
2		12.5		12.5					
3		12.5		25					
4		25		25					
5		25		50					
6		50		50					
7		50		75					
8		75		75					
9		75		100					
10		75		125					
11		75		150					
12		75		175					
13		100		175					
14		100		200					

Please review and continue on normal prescription sheet.

Pharmacist signature		**Date**	

Doctor signature		**Date**	

Monitoring – Record Lying and standing BP, Temperature and Pulse using the Clozapine Titration Monitoring physical health and side effects booklet and screen checklist (Appendix 5).

Day 1 15 minutes before dose, then 15 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours and 6 hours post dose.

Days 2-14 15 minutes before morning dose, 4 hours after the morning dose, 15 minutes before the evening dose and 2 hours after the evening dose

Appendix 2b - Inpatient Clozapine Starting Regime for the Over 65s (slower titration to 200mg/day)

This form is to be used in conjunction with the normal prescription sheet.

Patient Name		**NHS Number**	
Ward			

Cautions
Clozapine can cause **postural hypotension** and **tachycardia** and so BP and pulse need to be measured in the initial stages of dose titration. Clozapine can rarely cause **NMS** (Neuroleptic Malignant Syndrome) and it is advisable to monitor temperature on a daily basis initially. Other major side effects include **sedation** and due to this and the possibility of respiratory depression benzodiazepines should be used with caution. **Constipation:** give advice on diet fluids & exercise, be prepared to use laxatives. Dietary advice is necessary in regard to **weight gain** too. **Hypersalivation** can be a problem – see the Clozaril® website (www.clozaril.co.uk) under information heading for advice on this and **seizures.**

If titrating another antipsychotic downwards please complete second column

Day	**Date**	**Clozapine**							
		Am		**Pm**		**Am**		**Pm**	
		Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm
1		6.25		-					
2		12.5		-					
3		12.5		12.5					
4		12.5		12.5					
5		12.5		25					
6		12.5		25					
7		25		25					
8		25		25					
9		25		50					
10		25		50					
11		25		75					
12		25		75					
13		50		75					
14		50		75					
15		50		100					
16		50		100					
17		50		125					
18		50		125					
19		50		150					
20		50		150					

Please review and continue on normal prescription sheet.

Pharmacist signature		**Date**	

Doctor signature		**Date**	

Monitoring – Record Lying and standing BP, Temperature and Pulse using the Clozapine Titration Monitoring physical health and side effects booklet and screen checklist (Appendix 5).

Day 1 15 minutes before dose, then 15 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours and 6 hours post dose.

Days 2-20 15 minutes before morning dose, 4 hours after the morning dose, 15 minutes before the evening dose and 2 hours after the evening dose.

Appendix 2c - Inpatient Slow Clozapine Titration over 28 days for those sensitive to side effects e.g. tachycardia, postural hypotension

This form is to be used in conjunction with the normal prescription sheet.

Patient Name		**NHS Number**	
Ward			

If titrating another antipsychotic downwards please complete second column

Day	**Date**	**Clozapine**							
		Am		**Pm**		**Am**		**Pm**	
		Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm	Dose in mg	Adm
1		6.25		-					
2		12.5		-					
3		12.5		12.5					
4		12.5		12.5					
5		12.5		25					
6		12.5		25					
7		25		25					
8		25		25					
9		25		50					
10		25		50					
11		50		50					
12		50		50					
13		50		75					
14		50		75					
15		75		75					
16		75		75					
17		75		100					
18		75		100					
19		75		125					
20		75		125					
21		75		150					
22		75		150					
23		100		150					
24		100		150					
25		100		175					
26		100		175					
27		100		200					
28		100		200					

Please review and continue on normal prescription sheet.

Pharmacist signature		**Date**	
Doctor signature		**Date**	

Monitoring - Lying and standing BP, Temperature and Pulse**,** Screening checklist (Appendix 5)

Day 1 15 minutes before dose, then 15 minutes, 1 hour, 2 hours, 3 hours, 4 hours, 5 hours and 6 hours post dose.

Days 2-28 15 minutes before morning dose, 4 hours after the morning dose, 15 minutes before the evening dose and 2 hours after the evening dose.

Appendix 2d - Physical health monitoring (baseline and during Inpatient dose titration)

Using the NEWS Clozapine Titration Monitoring physical health and side effects booklet and Appendix 5 - for display in clinic and to keep with NEWS folder

Baseline monitoring prior to commencing Clozapine:

1. Plasma lipid profile – Total cholesterol, HDL Cholesterol and triglycerides
2. Weight. BMI (if possible)
3. Waist circumference
4. ECG
5. Temperature
6. Pulse (rate per minute)
7. Blood pressure –Standing and sitting
8. Fasting blood glucose and HbA1C
9. Liver function tests
10. Renal function test and electrolytes

BP, Pulse and Temperature monitoring during Clozapine Titration:

To be recorded on the ward NEWS Clozapine Titration Monitoring physical health and side effects booklet:

Day 1	*Lying and standing **BP**, **Temperature** and **Pulse**:* • *15 minutes before dose* • *15 minutes after dose* • *1 hour post dose* • *2 hours post dose* • *3 hours post dose* • *4 hours post dose* • *5 hours post dose* • *6 hours post dose*
Day 2-14	Lying and standing **BP**, **Temperature** and **Pulse:** • 15 minutes before am dose • 4 hours post am dose • 15 minutes before pm dose • 2 hours post dose

Appendix 3 - Considerations for Community clozapine initiation

- CMHT to agree community initiation with HTT and provisional start date
- CMHT to prepare patient for initiation of clozapine, performing baseline checks, preparing for clozapine registration and providing information about clozapine and the monitoring
- Once start date agreed CMHT to register patient for clozapine and send titration prescription (see Appendix 4a) to the pharmacy supplier
- If initiation is delayed and patient is registered, consider de-registering until titration can commence as patient will need to continue having blood tests whilst registered even if no clozapine taken
- Patient to attend day care / be visited at home every day for the first the first two weeks of clozapine initiation; This involves direct contact for 6 hours on the first two days and then twice a day for the duration of the titration
- There should be somewhere for the patient to sit or lie quietly should they need to
- Pulse, temperature and standing and lying BP should be performed as per Appendix 2d & Appendix 4c . If the results are of concern then the patient should be reviewed. The monitoring frequency may need to be increased, dose titration slowed or initiation as an inpatient considered
- The monitoring must be carried out by a qualified nurse on the first day of treatment, on subsequent days a qualified nurse should do it if possible. If the person carrying out these tests is not a qualified nurse, the results must be discussed with one of the following:
    - A qualified nurse on the unit/community team
    - Nurse in Charge or modern matron as agreed locally
    - Team Doctor if possible or Doctor on call
- A doctor will see the Service User regularly and at a minimum once every week. The doctor will assess the patient in a similar way to that which would be carried out if the patient was an in hospital, i.e. assessing the patient's progress, assessing any adverse reactions to clozapine, adjusting the titration rate, managing antipsychotic medication cross-titration, reassuring the patient
- Psychiatric observations, risk assessments and assessment of mental state and suicidality should be performed and progress monitored
- The patient will have an emergency contact number to call in case of concern over treatment e.g. adverse effects or deterioration in mental state. This contact must be available in the evening and at weekends

Appendix 4a - Clozapine prescription and administration card for Community initiation

Patient			
Consultant		**NHS No**	

If titrating another antipsychotic downwards please complete right hand side of chart (usually discontinue the 2nd antipsychotic by the time clozapine dose reaches 200mg/day).

Medicine		**Clozapine**				……..			
Day	**Date**	**am**		**pm**		**am**		**pm**	
		Dose in mg	**Sign**	**Dose in mg**	**Sign**	**Dose in mg**	**Sign**	**Dose in mg**	**Sign**
1		12.5		-					
2		25		-					
3		37.5		-					
4		50		-					
5		75		-					
6		50		50					
7		50		75					
8		75		75					
9		75		100					
10		100		100					
11		100		125					
12		100		150					
13		100		175					
14		100		200					

Please review and continue on clozapine out-patient prescription and forward to the Pharmacy.

Doctor signature		Date	

Appendix 4b - Physical monitoring recording charts for Community clozapine initiation

Day 1	**Before dose**				**15 minutes Post dose**				**1 hour Post dose**				**2 hours Post dose**			
	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse
	*				*				*				*			
	3 hours Post dose				**4 hours Post dose**				**5 hours Post dose**				**6 hours Post dose**			
	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse
	*				*				*				*			
Day 2	**Before dose**				**15 minutes Post dose**				**1 hour Post dose**				**2 hours Post dose**			
	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse
	*				*				*				*			
	3 hours Post dose				**4 hours Post dose**				**5 hours Post dose**				**6 hours Post dose**			
	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse	BP lying	BP stand	Temp.	Pulse
	*				*				*				*			

If temperature / pulse / BP not taken by a qualified nurse fill in next to the appropriate* the name of the nurse / doctor the result was discussed with, otherwise sign the entry in this box. Blood pressure must be taking lying and standing.

Day 3	Before dose	2 hours post dose	6 hours post dose

	BP lying	BP standing	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 4	Before dose				2 hours post dose				6 hours post dose			
	BP lying	BP standing	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 5	Before dose				2 hours post dose				6 hours post dose			
	BP lying	BP standing	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 6	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP standing	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 7	Before morning dose				4 hours post AM dose & pre PM dose				2hours post PM dose			
	BP lying	BP standing	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 8	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 9	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			

	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 10	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 11	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 12	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 13	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			
Day 14	Before morning dose				4 hours post AM dose & pre PM dose				2 hours post PM dose			
	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse	BP lying	BP stand	Temp	Pulse
	*				*				*			

If temperature / pulse / BP not taken by a qualified nurse fill in next to the appropriate* the name of the nurse / doctor the result was discussed with, otherwise sign the entry in this box. Blood pressure must be taking lying and standing.

Appendix 4c - Physical monitoring during Community clozapine initiation – for display in clinic/team base

Baseline monitoring prior to commencing Clozapine:

1. Plasma lipid profile – Total cholesterol, HDL Cholesterol and triglycerides
2. Weight. BMI (if possible)
3. Waist circumference
4. ECG
5. Temperature
6. Pulse (rate per minute)
7. Blood pressure –Standing and sitting
8. Fasting blood glucose and HbA1C
9. Liver function tests
10. Renal function test and electrolytes

Day 1 - 2	Lying and standing **BP**, **Temperature** and **Pulse**: • 15 minutes before dose • 15 minutes after dose • 1 hour post dose • 2 hours post dose • 3 hours post dose • 4 hours post dose • 5 hours post dose • 6 hours post dose Patient either attends day care and remains there all day and receives clozapine dose or a qualified nurse remains with patient in his/her own home.
Day 6 – 14	Lying and standing **BP**, **Temperature** and **Pulse**: • 15 minutes before am dose • 4 hours post am dose • 15 minutes before pm dose • 2 hours post dose Clozapine doses must not be increased over weekend if there is no healthcare professional available to visit and complete the monitoring for the Patient The pm dose is usually given at 7pm and monitoring done 2 hours post dose before patient leaves the day-care unit or the healthcare professional leaves the Patient's home.

Appendix 5 - Clozapine Side Effects Screening Checklist

Name		**CPMS no**	
Consultant		**NHS number**	
Care co-ordinator		**DOB**	
		Dose	

Side Effect	Yes/No	Comments
Appetite / weight Increase		
Hyper-salivation		
Excessive sweating		
Postural hypotension		BP - Sitting _____ Standing _____
Blurred vision		
Confusion		
Constipation		Needs immediate treatment
Diarrhoea		
Dry mouth		
Fluctuating temperature		
Nausea / vomiting		
Restless movements		
Rigidity		
Sexual dysfunction		
Sedation / fatigue / drowsiness		
Sore throat		
Jerky movements / fits / seizures		
Rapid pulse		Pulse _____
Tremor		
Urinary incontinence / retention		
Other		

Other medicines:	Smoking status: Units of alcohol / week: Illicit substances:

To be completed at **EVERY CLINIC APPOINTMENT**

Once this form is complete please scan onto patient's electronic patient record *

Appendix 6 - Clozapine information for General Practitioners

Dear Doctor,

Clozapine is an atypical antipsychotic that is only prescribed by a Consultant Psychiatrist. It is used in treatment resistant schizophrenia, in patients who are unable to tolerate the side effects of other antipsychotics or in psychotic disorders occurring during the course of Parkinson's disease where standard treatment has failed. (See NICE Guidelines available on www.nice.org.uk)

Clozapine is the only antipsychotic drug to have been shown to be more effective than standard neuroleptics (Kane et al 1988) and has much fewer extra-pyramidal side effects. Approximately 60% of patients who have not responded to other neuroleptics will respond to clozapine after 12 months.

A major drawback of using the drug is the associated risk of the patient developing neutropenia (approximately 3%). Full blood counts (FBC) are monitored by weekly blood tests for the first 18 weeks of treatment then bi-weekly up to 1 year and monthly thereafter if the blood profile is satisfactory. This procedure is co-ordinated by Mylan through their Clozaril® (Clozapine) Patient Monitoring Service (CPMS).

Furthermore:

- Taking alcohol or illicit substances with clozapine can contribute both to the adverse effect profile and to non-compliance. The concomitant use of clozapine with alcohol can result in excessive sedation or other CNS depressant effects

- Stimulants and hallucinogens, including, ecstasy, LSD and cannabis, and also cocaine, can trigger psychotic episodes.

- Sudden cessation of smoking may result in an increase in the plasma clozapine level which can lead to an increase in adverse events, some of which may be serious.

- Clozapine interacts with many other medicines for a variety of reasons (enzyme inhibition / induction, cardiac effects, blood dyscrasias, sedation etc). If any medicines are to be started or stopped during clozapine treatment appropriate information sources should be consulted to identify potential interactions.

- Penicillin V, flucloxacillin, amoxicillin, co-amoxiclav, tetracyclines may be safer to prescribe. Erythromycin may increase clozapine levels which may in turn, result in an increased risk of seizures. Antibiotics that are contra-indicated include chloramphenicol (eye drops included), co-trimoxazole, trimethoprim and sulfadiazine. Most antibiotics have had rare cases of blood dyscrasias reported with them. For fortnightly and four weekly monitored patients it is advisable to perform an extra sample at the end of the course for short courses or weekly for longer courses.

- Constipation is common with clozapine and affects 60% of patients. Constipation with clozapine needs to be treated promptly as if severe it can be fatal in 20-30% of cases (Maudsley Prescribing Guidelines 12th Edition)

Please note that in view of the above, it is essential for this drug to be noted on the GP's patient records for information, with a mechanism in place to prevent inadvertent prescribing of the drug by Primary Care.

Yours faithfully,

Appendix 7 – Bristol Stool Chart

Since it can be hard to state what is normal and what is abnormal, some health professionals use a scale to classify the type of stool passed. This helps assess how long the stool has spent in the bowel.

Type 1 has spent the longest time in the bowel and type 7 the least time. A normal stool should be a type 3 or 4, and depending on the normal bowel habits of the individual, should be passed once every one to three days.

Type 1		**Separate hard lumps, like nuts (hard to pass)**
Type 2		**Sausage shaped but lumpy**
Type 3		**Like a sausage but with cracks on the surface**
Type 4		**Like a sausage or snake, smooth and soft**
Type 5		**Soft blobs with clear cut edges (passed easily)**
Type 6		**Fluffy pieces with ragged edges, a mushy stool**
Type 7		**Watery, no solid pieces, entirely liquid**

Appendix 8 – Constipation Treatment Guidelines

CONSTIPATION

NHS
Cheshire and Wirral Partnership
NHS Foundation Trust

TREAT AGGRESSIVELY

1st Line	**Osmotic Laxative** (Adequate 2-3 L daily fluid intake required)	Recommend physical examination and use of Macrogol impaction regime if appropriate.
		Lactulose not recommended. Takes up to 48 hours to be effective.
2nd Line	**Stool Softener**	Docusate (up to 500mg daily in divided doses) Depending on patient, enema could also be considered.
3rd Line	**Stimulant Laxative**	Senna (7.5mg tablets 2-4 at night.) Recommend short term use only.

- **Review efficacy. Avoid concomitant anticholinergic drugs.**
- **If diarrhoea reported, ensure overflow excluded before stopping laxative.**
- **Avoid bulk forming laxatives**

Helping people to be
the best they can be