# SESLHD PROCEDURE COVER SHEET

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| **NAME OF DOCUMENT** | Roles and Responsibilities in Prescribing, Administering and Monitoring of Clozapine |
| **TYPE OF DOCUMENT** | Procedure |
| **DOCUMENT NUMBER** | SESLHDPR/591 |
| **DATE OF PUBLICATION** | August 2024 |
| **RISK RATING** | Medium |
| **LEVEL OF EVIDENCE** | National Safety and Quality Health Service Standards<br>Standard 1: Clinical Governance<br>Standard 4: Medication Safety<br>Standard 6: Communicating for Safety<br>Standard 8: Recognising and Responding to Acute Deterioration |
| **REVIEW DATE** | August 2027 |
| **FORMER REFERENCE(S)** | SESLHDBR/072 Clozapine Roles and Responsibilities within the South Eastern Sydney Local Health District Mental Health Service<br>SESLHDPR/591 Clozapine - Guidelines for Prescribing, Administration and Monitoring |
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| **FUNCTIONAL GROUP(S)** | Mental Health<br>Medicines and Therapeutics Related Policy Documents |
| **KEY TERMS** | Clozapine, Prescribing, Administration, Monitoring, Roles, Responsibilities |
| **SUMMARY** | The document describes the policy and procedure for prescribing, administering and monitoring of Clozapine within SESLHD with reference to roles and responsibilities of SESLHD Mental Health Staff |

# Roles and Responsibilities in Prescribing, Administering and Monitoring of Clozapine in SESLHD

SESLHDPR/591

## 1. POLICY STATEMENT

The purpose of this document is to ensure that Clozapine is safely and appropriately prescribed, dispensed, administered, and monitored and to outline the roles and responsibilities of these tasks.

**Clozapine is only to be prescribed by a Trainee Psychiatrist or Consultant Psychiatrist who is registered with ClopineCENTRAL. All other SESLHD prescribers must consult with the on-call Psychiatrist for authorisation to prescribe Clozapine.**

**The roles and responsibilities detailed within this procedure are specific to Mental Health Service staff.**

The procedure is intended to be used in all situations where treatment with Clozapine is used. The procedure should be read in conjunction with the approved Product Information, from ClopineCentral "YOUR Connection to Clopine patient care" and the NSW Ministry of Health Guideline GL2022_011 Monitoring Clozapine – induced Myocarditis.

Gaining a better understanding of the potential risks associated with Clozapine will enable SESLHD staff to ensure that appropriate protocols and guidelines for the effective monitoring and management of consumers taking Clozapine are in place.

## 2. BACKGROUND

Clozapine is an atypical antipsychotic medication that is effective in treatment-resistant schizophrenia, or where other antipsychotics have not been tolerated (extrapyramidal side effects, tardive dyskinesia etc).

Due to potentially life-threatening side effects of this medication, consumers receiving Clozapine must be monitored carefully throughout their treatment, both during admission and after discharge (by the outpatient Clozapine Clinics located across the SESLHD, Clopine registered community pharmacies and Clopine-registered GPs where available). The document sets out clinical and administrative procedures for safe and effective prescribing, dispensing, administration and monitoring of Clozapine.

### 2.1 Definitions

**Off label prescribing**: "Off label" prescribing occurs when a drug is prescribed for an indication, route of administration, or patient group that is not included in the approved product information document for that drug.

**Consumer / patient** Throughout this document, the terms "consumer" and "patient" may be used interchangeably to acknowledge the varying preferences of people who give and receive services in SESLHD.

### 2.2 Abbreviations

| | |
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| BMI | Body Mass Index |
| BPM | Beats Per Minute |
| CRP | C-Reactive Protein |
| ECG | Electrocardiogram |
| eMEDS | Electronic Medication Management System approved for use in SESLHD |
| eMR | Electronic Medical Record |
| EUC | Electrolytes, Urea, Creatinine |
| FBC | Full Blood Count |
| HbA1c | Glycated Haemoglobin |
| KBIM | Keeping Body In Mind |
| LFTs | Liver Function Tests |
| MH | Mental Health |
| NIMC | National Inpatient Medication Chart |
| POWH | Prince of Wales Hospital |
| SGH | St George Hospital |
| TSH | The Sutherland Hospital |
| ULN | Upper Limit of Normal |
| WCC | White Cell Count |

## 3. RESPONSIBILITIES

### 3.1 Employees will:

- Follow best practice standards and comply with related NSW Health Guidelines.
- Ensure their clinical documentation reflects the principles and philosophy of the guideline.
- Seek training and support where there is a gap in knowledge from subject matter experts.
- Comply with the responsibilities outlined in ClopineCentral Protocol according to roles, including Medical Officers, Pharmacists and Centre Coordinators.

### 3.2 Line Managers will:

- Ensure staff are familiar with this guideline, circulated and implemented locally.
- Monitor compliance with the guideline.
- Ensure appropriate local and district education and training are provided to support relevant staff at orientation and ongoing mandatory training.

### 3.3 District Managers/ Service Managers will:

- Distribute this guideline within their relevant service.
- Ensure line managers and staff are familiar with and adhere to the mandatory process contained within this document.

## 4. PROCEDURE

### 4.1 Indication for Clozapine

Clozapine is indicated for consumers with treatment resistant schizophrenia who have been non-responsive to, or intolerant of, other antipsychotic drugs.

Non-responsiveness is defined as an inadequate response to at least two other antipsychotic drugs. Adequate compliance should be ensured.

Intolerance is defined as the inability to achieve adequate benefit with other antipsychotic drugs because of severe and untreatable neurological adverse effects (extrapyramidal side effects, tardive dyskinesia or tardive dystonia).

Clozapine is occasionally used “off label” for other indications such as treatment resistant mania and psychosis associated with Parkinson’s or Huntington’s diseases. The SESLHD Policy SESLHDPD/182 – Medicine: Off-label use of registered medicines and use of unlicensed medicines should be followed.

Clozapine is registered with SESLHD Drugs and Therapeutic Committee on ERMS register as a high-risk medication and should be managed according to SESLHDPR/734 - High-Risk Medicines Management.

### 4.2 Contraindications

- History of drug induced granulocytopenia / agranulocytosis.
- Bone marrow disorders (Clopine Haematologist may be contacted for advice)
- Circulatory collapse and / or CNS depression due to any cause
- Alcoholic and other toxic psychoses; drug intoxication; comatose conditions
- Severe renal, hepatic, or cardiac disease (e.g., myocarditis) Seek specialist advice.
- Uncontrolled epilepsy
- Paralytic ileus.

**Note: If consumer presents with any of the above conditions, specialist medical advice should be sought to determine suitability to proceed with clozapine initiation.**

### 4.3 Initiation of Treatment

- Initiation of treatment can only be approved by a Consultant Psychiatrist
- Medical staff should review an approved Product Information for Clopine prior to prescribing any consumers clozapine.
- All medical staff need to be registered with ClopineCentral prior to prescribing Clozapine. (Registration with ClopineCentral is site specific)

### 4.3.1 Patient Information

Prior to initiation of Clozapine, the Medical Officer should discuss the risks and benefits of Clozapine treatment with the patient, particularly in comparison with alternative treatments.

The discussion should, where possible, include however not limited to the following:

- Reason for regular blood tests and the necessity for compliance with these, i.e., an explanation of agranulocytosis / neutropenia, its consequences and how this may affect physical health.
- Advice should be given to contact the treating Medical Officer or Local Medical Officer immediately if signs of infection, fever, sore throat, mouth ulcers or flu-like symptoms develop.
- The need for physical observation monitoring.
- The role of ClopineCentral and their need to record limited personal data about the patient.
- How current medication will be withdrawn or adjusted.
- Common side effects
- Potential medical complications, especially cardiac complications. Inform patient of symptoms of myocarditis and advise to inform Nurse or Medical Officer (inpatients), or present to the Emergency Department (outpatients) if unwell.
- The risk of constipation, and the importance of informing their Medical Officer or GP, promptly if this occurs. Recommend a high fibre diet and plenty of fluids.
- Diet and exercise advice regarding possible weight gain and metabolic side effects.
- The consequences of poor adherence with treatment.
- Enquire about smoking status (current smoker or recently quit). Discuss the impact of quitting or reducing smoking on Clozapine levels (i.e. reduced metabolism of the drug). N.B Consider the restrictions of smoking in inpatients units vs community consumers when prescribing clozapine.
- Consumer should be given copies of, or the link to, the SESLHD Mental Health Service Choice and Medication for information on Clozapine.

A record of this discussion and the points covered should be recorded in the patient's progress notes in eMR. If the patient does not have capacity to understand the information or provide consent, this should be documented clearly in the patient notes.

The nominated designated carer or principal care provider should be consulted regarding the decision where available.

The patient should read the Clopine (Clozapine) Monitoring System Privacy Statement and sign the Clopine Patient Consent Form.

- This should be countersigned by the Medical Officer.
- If the patient is unable to provide informed consent, this should also be documented on the form.
- The form should be filed in the patient notes.

### 4.3.2 Pre-treatment Tests

Prior to initiation of Clozapine, the following tests should be performed, and reviewed by the treating medical team:

**Blood Tests:**

- Blood group*
- Baseline:
  - FBC (performed within 10 days of the intended start date) *
  - EUC
  - LFTs
  - CRP*
  - Troponin I or T*
  - Fasting Blood Glucose Level or HbA1c*
  - Fasting Lipids (Total Cholesterol, HDL, LDL, Triglycerides) *

**Metabolic Monitoring**: documented on powerform in eMR.

- Weight, Height, BMI, Waist circumference (Metabolic Monitoring Form completed)

**Vital Observations**: documented on BTF Observation Chart in eMR.

- BP – postural
- Pulse Rate
- Temperature
- Respiration Rate

**Physical Exam**:

- Full exam documented on MH Physical Exam powerform in eMR.
- Cardiac history
- Family medical history

**Cardiac Test**:

- ECG*
- Echocardiogram*

* Essential for patient registration with ClopineCentral

**Interpretation of pre-treatment blood count:**

| Status | WCC and Neutrophil Result | Action |
|---|---|---|
| Green range | WCC $\geq$ 3.5 x $10^9$/L<br>AND<br>Neutrophils $\geq$ 2 x $10^9$/L | Clozapine may be commenced following successful registration |
| Amber range | WCC $\geq$3.0 and <3.5 x $10^9$/L<br>AND / OR | Wait one week and repeat blood count.<br>If results are still in this range, Clozapine |

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| | Neutrophils ≥1.5 - 2.0 x $10^9$/L and <2.0x$10^9$/L | may be commenced under the supervision of the Medical Officer |
| Red range | WCC < 3.0 x $10^9$/L<br>AND / OR<br>Neutrophils < 1.5 x $10^9$/L | Consult Clopine Haematologist for advice |

### 4.3.3 Registration with a Clozapine Monitoring Service

- All consumers, doctors (consultants, trainees and junior medical officers), pharmacists and clozapine clinic co-ordinators are required to register with ClopineCentral. Medical staff must complete eMeds training module “Ordering Clozapine course code – 259386193 prior to be being registered with ClopineCentral.
- Ensure against the risk of consumers developing neutropenia and agranulocytosis during treatment via the monitoring of white blood cell and neutrophil counts.
- A completed “Registration of New Patients” form is to be supplied to ClopineCentral, from the treating team, with notification from the treating team to the Clozapine coordinator.
- ClopineCentral will provide confirmation of consumer registration to the treating medical officer, Clozapine coordinator, and pharmacist coordinator via email. A copy of this email is to be uploaded into the consumers progress notes in eMR.
- The consumer will be issued with a Clopine Patient Number (CPN), which must be recorded in the consumer progress notes in eMR and should be used in all subsequent correspondence with ClopineCentral.
- The consumer identifiers provided to ClopineCentral are the consumer’s initials, date of birth, blood group, gender and Clopine Centre.

**Note: Confirmation that the consumer is registered with ClopineCentral must be obtained before prescribing Clozapine.**

### 4.3.4 Medication Review

- A review of the consumer’s existing medication must take place via a Medication History and Medication reconciliation in eMR.
- A clear plan should be in place regarding the withdrawal of previous antipsychotics.
- Drugs known to have a substantial potential to depress bone marrow function (eg; carbamazepine, phenothiazines) should ideally not be used concurrently with Clozapine.
- Concomitant use of long-acting depot antipsychotics should be avoided where possible because of the inability of these medications to be rapidly removed from the body.
- Benzodiazepines should be used with caution, as consumers may have an increased risk of circulatory collapse.
- Common drug interactions may be obtained from the Clopine Product Information.

### 4.3.5 Dosing Schedule

- Clozapine should be commenced at a low dose, increasing slowly as tolerated and according to patient response. Adverse effects such as sedation, postural hypotension, and hypersalivation are often dose-dependent and associated with rapid titration.
- The recommended starting dose of Clozapine is 12.5 mg in the morning on the first day, followed by 25 mg on the second day.
- The first dose must be given early in the day to allow for six hours of post-dose physical observation monitoring.
- If well tolerated, the daily dose may then be increased slowly in increments of 25 mg to a dose of up to 200 – 300 mg / day, or lower if side effects occur. This can usually be achieved in two – three weeks.
- The total daily dose may be divided unevenly, with the larger portion given at night. Once daily dosing at night may decrease daytime sedation and improve compliance.
- A suggested dosing schedule from NIMC Clozapine Titration is provided below:

| Day | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AM | 12.5 mg | 25 mg | 25 mg | 25 mg | 25 mg | 25 mg | 25 mg | 25 mg | 50 mg | 50 mg | 50 mg | 50 mg | 50 mg | 50 mg |
| PM | X | X | X | 25 mg | 25 mg | 50 mg | 75 mg | 100 mg | 100 mg | 100 mg | 125 mg | 125 mg | 125 mg | 150 mg |

- Alternatively, eMR has standard and custom clozapine titration power plans that can be accessed to prescribe clozapine State-based Clozapine Management solution (SESLHD sites only).
- Once the target dose is reached, the patient's clinical response should be monitored for at least two weeks before a further increase.
- Clozapine levels may be measured after the patient has achieved a steady-state concentration on a stable dose for at least one week (**See Section 4.5.4**).
- Further dosage increases may be made slowly if required, in increments of 50 to 100 mg each week.
- In most consumers, antipsychotic efficacy can be expected with 200 mg to 450 mg per day, however some consumers respond to lower doses. The lowest effective dose should be used.
- Lower doses are required for elderly and female consumers, and in those prescribed certain CYP enzyme inhibitors. Smokers may require higher doses.
- The plasma level threshold for therapeutic response has been variously reported from 200 to 550 microg/L, with most studies indicating that response occurs in the range 350-420 microg/L. Response may occur at lower levels.
- In those not responding to Clozapine treatment, the dose may be adjusted to give plasma levels in the range 350 – 500 microg/L to ensure an adequate trial.
- An upper limit of the target plasma level range has not been defined. A "therapeutic" upper limit of 600-800 microg/L has been proposed, however placing an upper limit on the target range may discourage potentially worthwhile dose increases within the licensed dosage range.

- Manufacturers recommend a maximum dose of 600 mg for most consumers, with doses up to 900 mg permissible, although rarely needed.
- A greater incidence of adverse effects may occur at doses over 450 mg/day, or plasma levels above 900 microg/L.
- Rapid dose increase, doses more than 600 mg per day and plasma concentrations above 1000 microg/L are associated with a higher incidence of seizures.
- After achieving optimum therapeutic benefit, many consumers can be managed effectively on lower doses. Careful downward titration is recommended.
- Consumers quitting or significantly reducing their level of tobacco smoking may need a reduction in dose, due to the reduced metabolism of Clozapine. (Nicotine Replacement Therapy does not affect clozapine levels).

**Note: All medical staff are to complete eMeds training module "Ordering Clozapine – 259386193", prior to being registered with ClopineCentral.**

### 4.3.6 Prescription, Supply and Administration of Doses

- The Electronic Medication Administration Record (MAR) should be used for the prescription and administration of Clozapine, in accordance with NSW Health Policy Directive PD2022_032 - Medication Handling.
- National Inpatient Medication Chart (NIMC) - Clozapine Titration guide
- State-based Clozapine Management solution (SESLHD sites only)
- Clozapine is dispensed on a named-patient basis once the pharmacist has ensured that the patient is registered with ClopineCentral, and the FBC has been reviewed.
- If a dose is missed, the reason must be recorded on the chart using the NIMC or eMEDS non-administration codes and must also be documented in the patient's medical notes. A medical officer must be informed of the missed dose before the next dose is given.

**N.B. If less than 48 hours of Clozapine have been missed, and the patient is on a titration schedule, Clozapine should be restarted at the dose prescribed before the event.**

### 4.3.7 Roles and responsibilities

See Appendix 1

## 4.4 Adverse Effects

Information about adverse effects may be obtained from the Clopine Product Information Leaflet.

More detailed information regarding Hypersalivation is below:

Clozapine induced hypersalivation (CIH) is most problematic in the initial stages of treatment (it has a frequency of about 30%) and although is usually reduced in severity

over time, it may persist. Prompt treatment is necessary to prevent medical and psychosocial consequences of CIH.

The pharmacological basis of CIH is unknown however non-pharmacological and pharmacological interventions are likely to diminish its severity. These include:

- Reducing the dose if possible
- Chewing sugar-free gum
- Elevating pillows, placing a towel on pillows or using a ClopineCentralTM provided pillowcase

- If CIH does not resolve with the above treatments, other off-label pharmacological interventions may be considered:
  - Hyoscine hydrobromide, 300mcg sucked and chewed up to three times a day (preferred agent)
  - Atropine 1% eye drops, 1-2 drops sublingually nocte
  - Atropine 1% eye drops, 1-4 drops in small amount of water as mouthwash, up to bd

**Note**: Atropine should only be used after the other treatments (including Hyoscine hydrobromide) have failed to provide adequate relief. There are no licensed treatments for CIH in Australia. The pharmacological interventions above have a limited evidence base and are considered off-label use. Being an off-label indication, medical staff must discuss the risks and benefits of the proposed treatment with the patient and/or their carers, so that they are capable of providing informed consent. Patients should be closely monitored during treatment, and counselled on use of the product prior to discharge.

<u>Hyoscine hydrobromide tablet</u>

Hyoscine hydrobromide is listed on Australian Register of Therapeutic Goods (ARTG) for the treatment of travel sickness, therefore the use of this preparation for clozapine-induced hypersalivation is considered as an off-label indication. Hyoscine hydrobromide tablet must be dispensed individually to patients, with clear direction on the dispensing label and/or endorsement on MAR (Medication Administration Record) on the electronic medication record (eMR) specifying how the tablet is to be administered. The tablets should be kept with all other dispensed medications in individual patient medication box, locked in medication room when not in use.

Patient and/or their carers should be provided with education by either nursing or pharmacy staff on how to effectively administer hyoscine hydrobromide tablets prior to initiating treatment or at the very least, before discharge.

<u>Atropine eye drop</u>

Atropine 1% eye drop is listed on the NSW Medicines Formulary with an off-label indication for the management of clozapine-induced hypersalivation. In addition to discussing with patients and/or their carers on risks and benefits of proposed treatment and obtaining verbal or written informed consent, patients should be assessed on their

ability to self-administer atropine eye drops in the community either sublingually or use as a mouthwash. This assessment should be carried out by appropriately trained clinician such as nurse, pharmacist or medical officer. Patient should only use this treatment if hyoscine hydrobromide tablet provides inadequate response, or if patient is intolerant of treatment.

Atropine 1% eye drop must be individually dispensed to patients, with clear direction on the dispensing label to guide safe administration. Wording such as "NOT FOR EYE APPLICATION – FOR SUBLINGUAL USE" or "NOT FOR EYE APPLICATION – DO NOT SWALLOW" for mouthwash must be prominently displayed on dispensing label. Nurses involved in atropine eye drop administration sublingually must be accredited by attending mandatory education session on treatment of clozapine-induced hypersalivation to support the safe use of atropine 1% eye drop whilst on the ward. The bottle should be kept with all other dispensed medications in individual patient box, locked in medication room when not in use.

Patient and/or their carers should be provided with education on how to safely use atropine 1% eye drop, either sublingually or as a mouthwash. This should occur prior to initiating treatment or at the very least, before discharge. Education can be provided by either trained nursing staff or pharmacist, and patient should be assessed on their ability to administer before discharge. Patient and/or carers should be provided with suitable fact sheet on atropine eye drop for hypersalivation to reinforce education, such as those from Choice and Medication Atropine eye drops for CIH.

## 4.5 Monitoring

### 4.5.1 Physical Observation Monitoring

**Baseline – Before first dose**: See Section 5.3.1 Clozapine Observation Monitoring Chart (Inpatients) – Initiation (Day 1)

Appropriate resuscitative facilities must be available.

The first dose of clozapine must be given during weekdays where a medical officer is present and when there is at least six hours for vital observations to be taken and recorded in eMR on powerform BTF Observation Chart.

The following parameters must be checked before the first dose of Clozapine:

- Blood Pressure (lying and standing)
- Pulse Rate
- Respiration Rate
- Temperature
- ECG
- Bowel movements

Medical Officer must be informed if:

- Consumer's vital observations are outside the flags (ie Yellow Zone or Red Zone BTF)
- Patient is constipated.
- If there is any change in patient presentation

Medical Officer should review ECG before commencement of Clozapine.

**Day 1 – Post dose**: See Section 5.3.1 for Inpatient Monitoring - Clozapine Observation Charts

After the first dose, the following parameters must be monitored every half hour for two hours, then every hour for the next four (a total of six hours monitoring post-dose) and recorded in eMR on powerform BTF Observation Chart:

- Blood Pressure (lying and standing)
- Pulse Rate
- Temperature
- Respiration Rate
- Signs or symptoms of:
  - Chest pain
  - Shortness of Breath
  - Sedation
  - Dizziness
  - Hypersalivation
  - Headache
  - Perspiration
  - Nausea
  - Enuresis
  - Infection

Medical Officer must be informed if:

- Consumer's vital observations are outside the flags (ie Yellow Zone or Red Zone BTF)
- If there is a change in patient presentation

**Day 2 Onwards**: See Section 5.3.2 for Inpatient Monitoring - Clozapine Observation Charts

The following parameters should then be monitored twice daily for at least four weeks whilst the patient is an inpatient, unless otherwise specified by the medical officer and recorded in eMR on powerform BTF Observation Chart.

- Blood Pressure (lying and standing)
- Pulse Rate

- Temperature
- Respiration Rate
- Signs or symptoms of:
  - Chest pain
  - Shortness of Breath
  - Sedation
  - Dizziness
  - Hypersalivation
  - Headache
  - Perspiration
  - Nausea
  - Enuresis
  - Infection
  - Constipation

Observations should be taken pre-dose, and four-six hours post-dose (or pre- and post-dose if prescribed once daily at night.

Physical observations (blood pressure, pulse rate, temperature, and respiration rate) must be recorded on the BTF Observation Chart on EMR.

Clozapine Observation Charts are to be filled in paper file once completed.

Medical Officer must be informed if:

- Consumer's vital observations are outside the flags (i.e., Yellow Zone or Red Zone BTF)
- Chest pain
- Shortness of breath
- If there is any change in consumers presentation

If the patient has been refusing observations, this must be documented clearly in the notes, and the medical officer must be informed.

**Ongoing Observation Monitoring**

Week 1, 2, 3, 4 – BP, Pulse Rate, Temperature, Respiration Rate and weight
Week 12 – BP, Pulse Rate, Temperature, Respiration Rate, and weight
3 Monthly - BP, Pulse Rate, Temperature, Respiration Rate, and metabolic monitoring

On average a patient should remain in hospital for at least 4 weeks of clozapine initiation. If the patient is discharged within this timeframe of treatment, then a documented plan is to be negotiated with the clozapine co-coordinator and consultant to ensure adequate monitoring in available in the community.

### 4.5.2 Blood Count Monitoring

Development of granulocytopenia and agranulocytosis may occur with Clozapine treatment. Although generally reversible on withdrawal of the drug, agranulocytosis can prove fatal. The majority of cases occur within the first 18 weeks of treatment (but it may occur at any time).

Because immediate withdrawal of the drug is required to prevent the development of life-threatening agranulocytosis, monitoring of the WCC and neutrophil count is **mandatory**. WCC and Neutrophil counts must be monitored weekly for the first 18 weeks of treatment, and then every four weeks thereafter.

Blood tests should be performed within 48 hours of dispensing Clozapine for outpatients. The ward pharmacist should ensure that FBC results are up to date before supplying Clozapine for inpatients.

**Interpretation of FBC Results:**

| Status | WCC and Neutrophil Result | Action |
|---|---|---|
| Green range | WCC $\geq$ 3.5 x $10^9$/L<br>AND<br>Neutrophils $\geq$ 2 x $10^9$/L | Clozapine may be commenced following successful registration |
| Amber range | WCC $\geq$3.0 and <3.5 x $10^9$/L<br>AND / OR<br>Neutrophils $\geq$1.5 - 2.0 x $10^9$/L and <2.0x$10^9$/L | Wait one week and repeat blood count.<br>If results are still in this range, Clozapine may be commenced under the supervision of the Medical Officer |
| Red range | WCC < 3.0 x $10^9$/L<br>AND / OR<br>Neutrophils < 1.5 x $10^9$/L | Consult Clopine Haematologist for advice |

If the patient develops signs of infection and / or neutropenia (e.g., flu-like symptoms, fever, sore throat or mouth ulcers), the medical officer should obtain an immediate FBC in addition to performing a clinical assessment of the patient.

If WCC and Neutrophil count are both normal, Clozapine therapy should continue in conjunction with twice weekly (i.e., within four days of each other) FBCs and clinical review until symptoms resolve.

Blood Result Entry:
Inpatient FBC results and “dispensing events” should be entered into the patient profile on the ClopineCentral Database by the ward pharmacist.

Clozapine clinic patient blood results and “dispensing events” should be entered by the hospital pharmacist if dispensing occurs at Hospital Pharmacy, or community pharmacists if obtained from Community Pharmacy.

Outpatient blood results and "dispensing events" should be entered by the Clozapine coordinator, or by the registered community pharmacist. Medical Officers should also be aware how to access the ClopineCentral database and enter blood results in case consumers present outside of usual working hours.

Red blood test results must be transmitted immediately to ClopineCentral, by clozapine coordinator. This must be discussed with clozapine consultant and Clopine hematologist. If out of normal business hours urgent medical attention should be sought

Eosinophilia:
Unexplained eosinophilia may occur, especially in the initial weeks of treatment with Clozapine. Discontinuation of therapy is recommended if the eosinophil count rises above 3.0 x 109/L. Therapy should restart only after the eosinophil count has fallen below 1.0 x 109/L.

The Clopine Haematologist may be contacted if advice on management is required.

### 4.5.3 Cardiac Monitoring

Cases of myocarditis, some of which have been fatal, and cardiomyopathy have been reported in consumers on Clozapine. Myocarditis is most commonly observed early in treatment, with most cases occurring around the third week of treatment (days 14 – 21).

The NSW Ministry of Health Guideline GL2022_011 Monitoring Clozapine – induced Myocarditis, should be followed:

- Baseline Troponin I or T, CRP, ECG should be completed.
- Baseline Echocardiogram
- Troponin I or T and CRP should be repeated at weeks 1, 2, 3, 4 (ECG), 5, 6 and 12 (ECHO)
- Troponin I or T and CRP and ECG completed annually.
- Years 1, 2, 5 and 10 an ECHO is to be completed.
- Blood pressure, pulse rate, respiration rate, temperature and weight should be taken as per Section 4.5.1.
- ECG should be repeated at week four (and earlier if taking concurrent medication with the potential to prolong the QTc interval), and then at six months and annually thereafter unless clinically indicated.
- Echocardiogram should be repeated at 12 weeks, then at years one, two, five and ten.
- Consumers should be asked to report if feeling unwell and any symptoms of illness including fever (>38C), chest pain, shortness of breath, flu-like symptoms, unexplained fatigue, severe diarrhoea, vomiting or dysuria.
- During the first four weeks, the patient should be directly asked about symptoms of myocarditis daily whilst the patient is an inpatient, and weekly if the patient has been transferred to an outpatient clinic.

The NSW Ministry of Health Guideline GL2022_011 Monitoring Clozapine – induced Myocarditis should be followed if patient develops:

- Signs or symptoms of unidentified disease, OR
- Pulse Rate ≥ 120 bpm or increased by > 30 bpm, OR
- CRP ≥ 50-100 mg/L, OR
- Troponin I or T elevation ≤ 2 ULN.

### 4.5.4 Clozapine Plasma Levels

Indications for Clozapine plasma levels include:

- Failure to respond to treatment
- Presence of adverse effects
- Suspicion of non-compliance
- Complicating physical disease (especially hepatic disease)
- Advanced age
- Interacting drugs
- Change in smoking status
- Plasma levels may be useful in optimising therapy if poor response occurs; however, reported levels are often variable
- Consumers show great variation in both their symptomatic response and side effects and may respond with a plasma level lower than the usual range

Sampling time:

- Levels should be taken at least three days after a dose change.
- The blood sample should be taken immediately before the next dose is due (trough level), or 12 hours post-dose if Clozapine is taken once daily.

N.B. Differences of a few hours in the time of evening dosing and / or morning plasma sampling will lead to large differences in reported plasma levels.

Clozapine levels are processed at different times during the week at each campus. Clinicians should make themselves familiar with local pathology processing timetables.

### 4.5.5 Metabolic Monitoring

| Parameter | Frequency |
|---|---|
| Fasting Glucose / HbA1c | ▪ Baseline<br>▪ Non-diabetic consumers:<br>▪ Fasting Glucose -<br>➢ At 1 month, 3 months, 6 months, 9 months, and 12 months<br>➢ Then a minimum of six monthly thereafter, unless clinically indicated.<br>▪ HbA1c –<br>➢ Every 12 months<br>▪ Diabetic consumers:<br>▪ HbA1c – |

| | |
|---|---|
| | ➢ Every three months |
| Fasting Lipids (Total Cholesterol, HDL, LDL, Triglycerides) | ▪ Baseline<br>▪ Every three months for first 12 months<br>▪ Then a minimum of six monthly thereafter |
| Weight, waist circumference and BMI (Metabolic Monitoring Form completed) | ▪ Baseline<br>▪ Inpatients: Weekly<br>▪ Outpatients: Monthly for first six months, then three monthly |

### 4.5.6 Additional Recommended Monitoring

| Parameter | Frequency |
|---|---|
| LFTs | Baseline, then every six months |
| EUC | Baseline, then every six months |

## 4.6 Interruptions in Therapy

### 4.6.1 Recommencing Clozapine after therapy interruption

Once Clozapine has been discontinued, the plasma level drops quickly, and tolerability to the adverse effects rapidly declines. Profound hypotension, collapse, and seizures are particular risks when re-starting Clozapine.

Therefore, if the interval since the last dose of Clozapine exceeds 48 hours, re-titration is necessary.

The patient should be advised to contact their doctor or case manager if they have missed taking Clozapine for more than two days, before taking their next dose.

All consumers recommencing Clozapine after an interruption of treatment must have pre-treatment blood test.

Manufacturers recommend that treatment should be restarted with a dose of 12.5 mg – 25m and re-titration should be initiated as in-patient.

Physical observations should be performed as per new consumers (see section 5.3.1).

A “therapy event” must be entered into the ClopineCentral database by the ward Pharmacist or Clozapine Coordinator.

### 4.6.2 Haematological Monitoring following Therapy Interruption

Three days or less interruption of therapy:

- Continue monitoring as normal.

More than three days and less than four weeks interruption of therapy:

- Weekly consumers: Weekly FBC for the next six weeks, or until the original week 18 date, whichever is the later date. Then every four weeks thereafter.

- Monthly (four weekly) consumers: weekly FBC for six weeks, then every four weeks thereafter.

Four weeks or more interruption of therapy:

- Recommence monitoring as for a new patient (weekly FBC for 18 weeks).

Any change to the monitoring frequency will show up on the ClopineCentral patient profile as an “active override”, or revised “week 18 date”, once the “therapy event” has been entered.

### 4.6.3 Re-registration of a Patient

If a patient has discontinued Clozapine therapy for three months or more, the patient must be re-registered with ClopineCentral by submitting a new Patient Registration Form.

Clozapine must not be recommenced in consumers who have previously developed blood dyscrasias related to Clozapine therapy.

## 4.7 Therapy Discontinuation

A gradual reduction in dose is recommended over at least a one-to-two-week period. A reduction of 25 mg/day each month is recommended. If abrupt discontinuation is required due to a serious adverse event, the patient’s mental state should be monitored carefully. The patient should also be observed for symptoms of cholinergic rebound, such as profuse sweating, headache, nausea, vomiting and diarrhoea.

“Weekly non-haematological” consumers require a FBC to be performed at the time of discontinuation, then weekly for at least four weeks.

“Monthly non- haematological (four weekly) consumers require an additional FBC close to the time of discontinuation, then four weeks after discontinuation.

Consumers who are being monitored daily or twice weekly, due to red or amber blood counts or signs of infection, require testing to continue at this frequency until the blood count returns to the ‘green’ range or symptoms resolve. Monitoring frequency should then reflect their previous protocol, i.e., if they were weekly, they should receive four weeks of weekly blood tests.

Inform Clozapine coordinator or ward pharmacist in order to “cease” patient on ClopineCentral patient profile and ensure appropriate post-monitoring occurs.

Inpatient post-monitoring blood results should be entered into the ClopineCentral Database by the ward pharmacist. Outpatient blood results should be entered by the Clozapine coordinator. Medical Officers should also be aware how to access the ClopineCentral database and enter blood results.

### 4.8 Reporting of Serious or Unexpected Adverse Effects

ClopineCentral must be informed within 24 hours of and all adverse events, whether they are expected or unexpected. ClopineCentral and the Clozapine coordinator / ward pharmacist should be notified of all serious or unexpected adverse drug reactions.

The treating medical officer should complete the Clopine Adverse Event Report Form and return to ClopineCentral, and also forward a completed ADRAC Adverse Drug Reaction Reporting Form ("Blue Card") to the TGA.

### 4.9 Transfer of Care

#### 4.9.1 Admission to SESLHD Inpatient Ward

- Patient's usual dose should be determined, and compliance assessed.
- If there is doubt about a patient's compliance (more than 48 hours since last dose), the duty or on-call consultant psychiatrist must be contacted for advice, before prescribing the dose (See Section 5.6.1).
- A Clozapine level may be taken if appropriate. N.B. Clozapine levels are only processed once a week at some facilities. Staff should make themselves familiar with local pathology processing timetables.
- Establish brand of clozapine consumer is on and what Clozapine Clinic they are registered with.
- Patient must be registered with ClopineCentral at the hospital the patient is to be treated.
- The Clozapine coordinator or ward pharmacist must be contacted at the earliest opportunity to alert them to the patient, to organise patient transfer on the ClopineCentral database if necessary, and to ensure that the patient is up to date with relevant FBC monitoring.
- An FBC should be ordered if it is unknown when the last FBC was obtained.
- Assess smoking status via completion of eMR powerform Fagerstrom Test for Nicotine Dependence.
- The on-call pharmacist should be contacted for advice and medication supply if the patient is admitted out of hours (to ensure doses are not missed).

#### 4.9.2 Transfer to SESLHD from another centre:

- Prior to a patient being transferred to SESLHD from another service, they must be allocated a community care coordinator/primary clinician.
- The Clozapine coordinator should be contacted at the earliest opportunity to arrange transfer of the patient from the existing Clozapine Centre to SESLHD on the ClopineCentral database.
- Consumers who are taking a different brand of Clozapine must be registered with ClopineCentral using the ClopineCentral "Registration Form for consumers switching from another Clozapine brand to Clopine".

### 4.9.3 Transfer to another centre from SESLHD

- The Clozapine coordinator should be contacted to arrange ClopineCentral transfer of the patient from SESLHD to the new Centre on the ClopineCentral database.
- The treating medical officer, Clozapine coordinator should contact the Clozapine coordinator at the receiving centre to discuss the transfer and confirm that the new Centre accepts responsibility for the monitoring of the patient.
- If the patient is being discharged, the treating medical officer should write a discharge prescription for enough Clozapine to last until the first Clozapine Clinic appointment (dependent on frequency of blood testing) and organise a pre-clinic blood test.

### 4.9.4 Discharge from SESLHD wards / units – Referral to Clozapine Clinic

Note: All New and Existing Clozapine Clinic consumers being discharged from an inpatient environment within a SESLHD facility (including, but not limited to Mental Health) must be referred to and accepted for care by a Community Mental Health Clinician for care co-ordination/primary clinician.

New Clozapine Clinic Consumers:
It is the responsibility of the referring medical officer to ensure that the following have been done prior to referral:

- FBC, Troponin I or T, CRP, EUC, LFTs, fasting Cholesterol (including HDL, LDL, Triglycerides), fasting Glucose / HbA1c
- Metabolic Monitoring Form complete – Weight, Height, BMI, Waist Circumference, BP
- ECG
- Echocardiogram

Abnormalities must be dealt with by the treating team before referral to the clinic.

Existing Clozapine Clinic Consumers:
All appropriate monitoring should be up to date. See Document 5.2 for a summary.
The medical officer should contact the Clozapine coordinator to refer the patient to the Clozapine Clinic and arrange a clinic appointment. The case manager/primary clinician should also be contacted well in advance of discharge.

The medical officer should prescribe enough Clozapine to last until the clinic appointment (some overlap may be required if medications are blister packed – discuss with the ward pharmacist). N.B. Supply is dependent on an up to date FBC.
The medical officer should explain the process to the patient of attending a Pathology Collection Centre within the 48 hours prior to their scheduled Clozapine Clinic appointment, in order to have their weekly / four weekly blood test.

The patient should be informed of the Clozapine Clinic appointment date and time, and this should be documented in the patient's discharge summary.

The patient should be provided with a Pathology Laboratory blood test request form, requesting a FBC and any other necessary blood tests.

The patient should be counselled on their discharge medication by the medical officer and provided with the Consumer Medicines Information leaflet +/- the ClopineCentral "Your Guide to Clopine" information booklet.
The medical officer should ensure the Discharge Summary is up to date on EMR before the patient is discharged from the Inpatient Unit.

The Nurse looking after the patient should ensure that the patient has the following before leaving the ward:

- Discharge medications (which have been explained to the patient by the medical officer)
- Pathology Laboratory blood test request form
- Clozapine Clinic appointment – and patient is aware of date and time.
- Check that the consumer has enough supply of Clozapine to reach their booked clozapine appointment and escalate to Treating Team immediately if the supply does not cover the consumer until the Clozapine Clinic appointment.

The Nurse should also ensure the case manager/primary clinician is aware of the discharge.

The following should be faxed or emailed to the Clozapine coordinator for inclusion in the Clozapine Clinic file:

- Baseline echocardiogram report
- Copy of baseline and any subsequent ECGs

### 4.10 SESLHD Clozapine Clinics

Consumers must be referred to a Clozapine Clinic and a community clinic prior to discharge from all SESLHD wards / units.

The treating team must ensure that all monitoring detailed above is up to date prior to discharge of the patient (See Documents 5.1 and 5.2 for a summary). An adequate quantity of Clozapine tablets must be prescribed and dispensed to last the patient until their Clinic appointment (dependent on frequency of blood testing).

The SESLHD Clozapine Clinics are held each Wednesday at:

- POWH Euroa Centre
- St George Community Mental Health, Kogarah
- Sutherland Community Mental Health, Sutherland Hospital

Consumers must attend a Pathology Laboratory within 48 hours of their scheduled appointment for a FBC (and any other necessary blood tests) to be taken.

During the first appointment, the prescribing medical officer should check that all relevant tests have been performed and documented by the referrer. At each subsequent appointment, the medical officer should ensure that the necessary monitoring has been performed. The Clozapine Monitoring Form should be completed on EMR for each visit.

Blood tests must be checked, and a prescription written each week during the first 18 weeks of treatment, then every four weeks thereafter, as per Section 5.10.2.

Consumers being treated on Clozapine should be reviewed for mental state, physical health and clozapine side effects by a consultant psychiatrist every six months and every three months by a psychiatry trainee.

A letter should be sent to the GP at a minimum every six months.

If a consumer chooses not to attend medical reviews this should be escalated to site Clinical Director for a complex case review.

Physical observations (blood pressure, pulse rate, temperature, and respiration rate) should be taken weekly for the first four weeks of treatment. Blood pressure should be repeated at weeks six and 18. Blood pressure, pulse rate and temperature should then be measured three monthly thereafter, by the Clozapine Coordinator or outpatient nurse.

The medical officer should be informed if:

- Blood pressure:
  - Systolic <100 or >140mmHg
  - Diastolic <60 or > 90mmHg
  - OR a postural drop of 30mmHg
- Pulse rate: ≥100bpm or increased by > 30bpm.
- Temperature: <35.5°C or > 38°C
- Respiration rate: <10 or >25 breaths/min 25
- Chest pain, shortness of breath
- Patient has had a change in regular bowel habits or has not had a bowel motion in more than 4 days.
- Or any other significant change in patient condition

During the first four weeks of treatment, the patient should be directly asked about symptoms of myocarditis at each weekly Clozapine Clinic appointment.

The Clozapine coordinator should ensure that the physical metabolic monitoring (weight, BMI, waist circumference) is up to date. See Document 5.2 for a summary. Physical metabolic monitoring should be undertaken when due by the case manager/primary clinician, or by the Clozapine coordinator.

### 4.10.1 Keeping Body in Mind (KBIM) Referral Procedure

Each clozapine site has a KBIM team that operates a healthy lifestyle clinic alongside the Clozapine Clinic. Referrals should be made by the Clozapine coordinator into the electronic diary of a KBIM team member in available clinic time. Appropriate referrals are for brief assessment and advice around diet, physical activity, and smoking cessation. Consumers should be referred into KBIM group programs for more intensive lifestyle modification.

### 4.10.2 Outpatient Clozapine Clinic Prescribing

After attendance at the clinic, consumers should be provided with an outpatient prescription for Clozapine. The prescription should be written for seven days' supply for consumers who require weekly blood tests.

Prescriptions may be written for up to 28 days' supply for consumers who have exceeded 18 weeks of therapy and are eligible for monthly (four weekly) blood tests. Prescriptions for the first 18 weeks of treatment must be dispensed at the hospital pharmacy.

Prescriptions for continuing treatment (of consumers who have completed at least 18 weeks of therapy and are on a stable dose) may also be dispensed by a Clopine-registered Community Pharmacy (see Section 5.12).

Clozapine prescriptions to be dispensed at the hospital pharmacy must be written by a Clopine-registered prescriber on a POWH/STGH/TSH Section 100 (S100) Prescription.

All of the following information must be handwritten by the prescribing medical officer:

- Patient name, MRN, date of birth, address
- Drug name, form and strength(s) required to make up the dose.
- Quantity of tablets of each strength (not number of days' supply)
- Streamlined Authority Code
  - NB. There are separate PBS streamlined authority codes for initial treatment and continuing treatment. (See PBS Website for up-to-date codes).
- Prescriber name, PBS Prescriber Number, signature, date
- Clopine (Clozapine) tablets are available in 25 mg, 50 mg, 100 mg and 200 mg strengths.
- No repeats may be issued on these prescriptions.

The medical officer should attach a Pathology Laboratory Blood Result Form to the prescription (POWH / TSH). The FBC should have been taken within 48 hours of the prescription date. The form should include the date, dose, and signature of the prescriber, and a note of any abnormal blood result or dose change.

At STGH, the FBC results are entered directly into the online ClopineCentral patient profile by the Clozapine coordinator during the Clinic appointment, and these results must be checked by the pharmacist before dispensing Clozapine.

If the patient wishes the NSW Government to cover the cost of their co-payment, the prescriber must also provide a signed NSW Health Co-payment Consent Form with the prescription. The patient or representative must sign the form on collection of the medication. Each form is valid for three years and should be kept on file by the pharmacy.

#### 4.10.3 Outpatient Clozapine Dispensing – Hospital Pharmacy

The WCC and Neutrophil results must be checked by a Clopine-registered pharmacist before a prescription may be dispensed. Abnormal blood results should be discussed with the prescriber, if not already noted on the blood form.

Any discrepancies between the prescribed dose and previously dispensed doses should be investigated.

The prescription should then be dispensed as per POWH/STGH/TSH pharmacy procedures.

### 4.11 Supply of Additional Medication to Consumers

If a patient will require an increased quantity of Clozapine, for example if travelling overseas, the prescribing medical officer or Clozapine coordinator must obtain a dispensation from ClopineCentral, and document this clearly on the prescription that is sent to the pharmacy.

Consumers must have an up-to-date FBC on their ClopineCentral patient profile for dispensations to be approved.

Request for up to 180 days medication supply may be approved, provided the patient is compliant with their mandatory blood tests whilst they are away.
If the patient has a green blood result history, the following may be approved:

- Monthly consumers may have their blood test date extended by 14 days.
- Weekly consumers may have their blood test date extended by two days.

### 4.12 Community Pharmacy Clozapine Dispensing

#### 4.12.1 Process for Transferring Patient to Community Pharmacy Dispensing

N.B. Clozapine may only be dispensed for POWH/STGH/TSH consumers by a community pharmacy registered as a “Clinic” with ClopineCentral and associated with the relevant Hospital.

The patient must use same community pharmacy each time.

- Suitability of patient for community pharmacy dispensing should be assessed:
- Patient must be on maintenance stage of therapy (i.e., must have completed 18 weeks of weekly FBCs)

- Patient should be stable on treatment, and be organised and compliant with medication, and / or have a case manager.
- Patient must be informed of the changeover and be in agreement.

The SESLHD MH pharmacist should be contacted with the patient's name and preferred community pharmacy or suburb.

The SESLHD MH pharmacist should then contact the community pharmacy to request community pharmacy dispensing and organise Clopine registration and training where necessary.

The community pharmacy must be registered as a "Clinic" with ClopineCentral and associated with the relevant hospital.

All community pharmacists to be involved in dispensing Clozapine must be registered with ClopineCentral at that community pharmacy (Clinic) and follow the ClopineCentral Protocol for Clozapine dispensing.

The SESLHD MH pharmacist should provide the community pharmacy with the Clozapine Dispensing Transfer Form (includes last dose details and due date). See Document 5.5 for format.

The SESLHD MH pharmacist or Clozapine coordinator must add the community pharmacy (Clinic) to the patient's ClopineCentral profile (to allow the community pharmacy access).

### 4.12.2 Prescribing

Clozapine prescriptions to be dispensed at a community pharmacy must be prescribed on a PBS Authority Prescription, with the streamlined code annotated (See PBS Website for up to date codes). See Document 5.6 for example prescription.

Clozapine cannot be brand-substituted. "Clopine" brand must be specified (or "Versacloz" if clozapine oral liquid is required), and the "brand substitution not permitted" box must be crossed. One prescription is required per strength of tablet. If repeat prescriptions are required, a phone authority must be obtained, and the code annotated on the prescription. Up to five repeats may be authorised with a phone authority.

Blood result forms must accompany each prescription (POWH, TSH). At STGH, blood results are entered electronically into the ClopineCentral patient profile by the Clozapine coordinator during the appointment. The community pharmacist must check these results before dispensing Clozapine for the patient.

Any dose change must be indicated on the prescription or on the blood result form. A signed NSW Health Co-payment Consent Form must be provided when requested by pharmacy if the patient wishes NSW Health to cover the cost of the co-payment.

### 4.12.3 Process for Amber / Red Results

Medical Officer must acknowledge amber result on blood form, and document when next blood test will be taken. The Clozapine coordinator and pharmacist must ensure the patient is aware of the amber result, when the next blood test is due, and the need to report any symptoms of infection.

If a red result is obtained, the patient and community pharmacy must be contacted immediately to advise to cease clozapine and to organise repeat blood tests (as per Section 4.5.2). If the prescriber wishes to continue Clozapine, the Clopine Haematologist must be contacted. The outcome of this discussion must be communicated directly to the pharmacist and documented in EMR and on the blood result form (with the date of the next blood test).

Clopine Haematologist recommendations are visible in the “notes” section of the patient profile on the ClopineCentral database.

**Supply quantity:**
Community pharmacy decision - preferred method should be confirmed with the pharmacy:

a) Clozapine Clinic to provide a new prescription with blood result form each week, OR
b) Pharmacy to provide a “staged supply” of weekly medication whilst increased FBC monitoring is required (supply provided on receipt of signed blood test result form each week from doctor).

### 4.12.4 Dispensing

- Clopine-registered community pharmacist must check blood results before dispensing Clozapine.
- Clopine-registered community pharmacist must then promptly enter the blood results and “dispensing event” into the ClopineCentral patient profile (unless already entered by the Clozapine coordinator).

<u>Repeat Prescription Dispensing</u>

- Repeat Prescription Dispensing is at the discretion of the community pharmacy.
- Repeat prescriptions should be kept by the community pharmacy with the co-payment consent form (not returned to the patient).
- The Clozapine Clinic must fax through a blood test result form when due for dispensing.
- The blood test result form must be annotated by the medical officer with:
- Confirmation of current Clozapine dose
- If dose has changed, the doctor must supply new prescription.
- Doctor’s name and signature

- Date
- Acknowledgement of any “amber” or “red” result, as above.

### 4.12.5 Non-compliance / Re-titration

- If a patient has been non-compliant for more than two days, the
- community pharmacy must contact the doctor or Clozapine coordinator immediately. Out of hours, the Acute Care Team may be contacted for advice, or the patient should be referred to the Emergency Department for review by a doctor.
- The “therapy event” must be entered into the ClopineCentral database by the Clozapine coordinator.
- A pre-treatment blood test should be taken before recommencing Clozapine.
- Changes to the **frequency of blood test monitoring** will apply if the patient has missed more than three days of Clozapine:
  - ≤ 3 days interruption
    - Continue four weekly monitoring as normal.
  - ≥ 4 days and < 4 weeks interruption
    - Weekly FBC for six weeks, then back to four weekly
  - ≥ 4 weeks interruption
    - Weekly FBC for 18 weeks, then four weekly (as for new patient)
- PBS requirements for: “Continuing Treatment” are that the dose must be stable and the patient must have completed 18 weeks of weekly FBC monitoring.
- Therefore initial re-titration doses must be dispensed by the hospital pharmacy (using the PBS “Treatment Phase: Initial Treatment” streamlined code - See PBS Website for up to date codes).
- Once the dose is stable, a decision should be made whether re-titration should be dispensed by the hospital pharmacy or by the community pharmacy, based on individual patient factors.
- N.B. If the patient has been non-compliant for more than four weeks, they would no longer be classed as being in the “continuing” stage of treatment. Therefore, they would not be eligible for community pharmacy dispensing until they had completed the 18 weeks of weekly FBC tests.
- **Supply quantity**: seven days whilst in the “weekly” monitoring stage - Clinic to provide a new prescription with blood result each week.

## 5. DOCUMENTATION

### 5.1 Clozapine Registration Check List

Ensure the following have been completed:

| | |
|---|---|
| **Eligibility** | Non-responsive to ≥ 2 other antipsychotic drugs, or intolerant of other antipsychotic drugs due to side effects |
| | Contraindications are absent, cautions have been considered. |
| | Medication Review - Drug Interactions have been considered.<br>- Plan made for withdrawal of existing antipsychotics |
| **Education** | Patient aware of benefits and risks associated with Clozapine treatment. |
| **Consent** | Clopine (Clozapine) Consent Form Signed by patient and Medical Officer<br>(Document if patient unable to give informed consent) |
| **Investigations** | Blood Group (required for registration with ClopineCentral) |
| | FBC - WCC & Neutrophil Count (within 10 days of intended commencement date - required for registration with ClopineCentral) |
| | Baseline EUC, LFTs |
| | Baseline fasting Glucose (or HbA1c), fasting Lipids (including HDL, LDL, Triglycerides) (Metabolic Monitoring) |
| | Baseline Troponin I or T, CRP (Cardiac Monitoring) |
| | Baseline BP (lying and standing), Pulse Rate, Temperature, Respiration Rate (Physical Observations) |
| | Baseline ECG |
| | Baseline Echocardiogram (Recommended) |
| | Full Physical Exam |
| | Assess smoking status (affects Clozapine levels) |
| **Documentation** | Metabolic Monitoring Form completed (Weight, Height, BMI, Waist circumference, BP) |
| **Registration** | ClopineCentral Patient Registration Form completed. |
| | Inform Clozapine Coordinator or ward pharmacist. |

**Patient must <u>not</u> be commenced on Clozapine until confirmation of registration with ClopineCentral has been received (confirmation received via email or via Clozapine Coordinator or ward Pharmacist).**

Document Clopine Patient Number (CPN) in patient notes.

ClopineCentral require 24 hours' notice in order to register a patient (discuss with Clozapine Coordinator or ward pharmacist if wishing to commence Clozapine more urgently).

**First dose of Clozapine should be given in the morning where possible (6 hours of post-monitoring required).**

Contact Clozapine Coordinator or ward Pharmacist with any queries.

## 5.2 Clozapine - Monitoring Summary

| | Monitoring Requirements |
|---|---|
| Pre-dose | Monitor BP, Pulse Rate, Temperature, Respiration Rate, etc. as per Clozapine Observation Monitoring Chart |
| Half hourly for 2 hrs, then hourly for 4 hrs post-first dose | Monitor BP, Pulse Rate, Temperature, Respiration Rate, etc. as per Clozapine Observation Monitoring Chart |
| BD for ≥ 4wks* | Monitor BP, Pulse Rate, Temperature, Respiration Rate, etc. as per Clozapine Observation Monitoring Chart * whilst an inpatient (refer to Document 6.4 for outpatient monitoring) |
| | |
| Weekly whilst an inpatient | Complete Metabolic Monitoring Form on EMR |
| | |
| Week 1 | FBC, CRP, Troponin I or T<br>(ECG if indicated) |
| Week 2 | FBC, CRP, Troponin I or T<br>(ECG if indicated) |
| Week 3 | FBC, CRP, Troponin I or T<br>(ECG if indicated) |
| Week 4 | FBC, CRP, Troponin I or T, Fasting Glucose<br>ECG |
| Week 5 | FBC, CRP, Troponin I or T |
| Week 6 | FBC, CRP, Troponin I or T, BP |
| Weeks 7 - 11 | Weekly FBC |
| Week 12 | FBC, Fasting Glucose / HbA1c, Fasting Lipids (Total Cholesterol, HDL, LDL, Triglycerides) |
| Weeks 13-17 | Weekly FBC |
| Week 18 | FBC, CRP, Troponin I or T, BP |
| Week 18 onwards | Every 4 weeks - FBC - ongoing whilst on Clozapine, and for 4 weeks after ceasing (refer to Section 5.7) |

**Ongoing Physical Observation Monitoring:**

| | |
|---|---|
| BP, pulse rate, temperature, respiration rate | Inpatients – as above.<br>Outpatients –<br>Week 1, 2, 3, 4 - BP, pulse rate, temperature, respiration rate.<br>Week 6, 18 – BP<br>Then three monthly thereafter – BP, pulse rate, temperature |

**Ongoing Cardiac Monitoring:**

| | |
|---|---|
| At 6 months | CRP, Troponin I or T - then 6 monthly thereafter unless clinically indicated |
| | ECG - then annually thereafter unless clinically indicated |
| | Echocardiogram - then thereafter if clinically indicated |

### Ongoing Metabolic Monitoring

| | |
|---|---|
| ▪ Fasting Glucose / HbA1c | ▪ Non-diabetic consumers:<br>▪ Fasting Glucose -<br>➢ At 1 month, 3 months, 6 months, 9 months and 12 months<br>➢ Then a minimum of six monthly thereafter, unless clinically indicated<br>▪ HbA1c –<br>➢ Every 12 months<br>▪ Diabetic consumers:<br>▪ HbA1c –<br>➢ Every three months |
| ▪ Fasting Lipids (Total Cholesterol, HDL, LDL, Triglycerides) | Every three months for 12 months, and then a minimum of six monthly thereafter |
| ▪ Weight, waist circumference, BMI | Inpatients: Weekly<br>Outpatients: Monthly for first six months, then three monthly |
| ▪ BP | As above for inpatients, then at every outpatient clinic appointment |

### Ongoing Monitoring

| | |
|---|---|
| Every six months | LFTs, EUC |

**Repeat more frequently if clinically indicated.**
Refer to POWH Clinical Business Rule: Clozapine - Guidelines for Prescribing, Administration and Monitoring (Section 5.5.2) for WCC and Neutrophil ranges and monitoring requirements.
Refer to NSW Ministry of Health Guideline GL2022_011 - Monitoring Clozapine induced Myocarditis

## 5.3 Clozapine Observation Monitoring Charts

### 5.3.1 Clozapine Observation Monitoring Chart (Inpatients) – Initiation (Day 1)

Attach Addressograph:

Complete observations as below, then twice daily thereafter

| **Date:** | | **Baseline** | **+0.5h** | **+1h** | **+1.5h** | **+2h** | **+3h** | **+4h** | **+5h** | **+6h** |
|---|---|---|---|---|---|---|---|---|---|---|
| **Time:** | | | | | | | | | | |
| **Blood Pressure:** Lying | | | | | | | | | | |
| **Blood Pressure:** Standing | | | | | | | | | | |
| **Pulse Rate** | | | | | | | | | | |
| **Respiration Rate** | | | | | | | | | | |
| **Temperature** | | | | | | | | | | |
| **Chest Pain** ***(Alert MO)*** | **Y/N** | | | | | | | | | |
| **Shortness of Breath** ***(Alert MO)*** | **Y/N** | | | | | | | | | |
| **Sedation:** | **Y/N** | | | | | | | | | |
| Absent | 0 | | | | | | | | | |
| Mild | 1 | | | | | | | | | |
| Severe | 2 | | | | | | | | | |
| **Dizziness** | **Y/N** | | | | | | | | | |
| **Constipation** | **Y/N** | | | | | | | | | |
| **Hypersalivation:** | **Y/N** | | | | | | | | | |
| Absent | 0 | | | | | | | | | |
| Mild | 1 | | | | | | | | | |
| Severe | 2 | | | | | | | | | |
| **Headache** | **Y/N** | | | | | | | | | |
| **Perspiration** | **Y/N** | | | | | | | | | |
| **Nausea** | **Y/N** | | | | | | | | | |
| **Enuresis** | **Y/N** | | | | | | | | | |
| **Infection** (*if yes – alert MO - repeat FBC immediately)* | **Y/N** | | | | | | | | | |
| **Signature** | | | | | | | | | | |

### 5.3.2 Clozapine Observation Monitoring Chart (Inpatients) – Day 2 Onwards

Complete observations TWICE DAILY
(pre-dose, and 4-6 hours post-dose (or pre-and post-dose if once daily evening dose)

Attach Addressograph

| **Date:** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | AM | PM | AM | PM | AM | PM | AM | PM |
| **Time:** | | | | | | | | | |
| **Blood Pressure:** Lying | | | | | | | | | |
| **Blood Pressure:** Standing | | | | | | | | | |
| **Pulse Rate** | | | | | | | | | |
| **Respiration Rate** | | | | | | | | | |
| **Temperature** | | | | | | | | | |
| **Chest Pain** ***(Alert MO)*** | **Y/N** | | | | | | | | |
| **Shortness of Breath** ***(Alert MO)*** | **Y/N** | | | | | | | | |
| **Sedation:** | **Y/N** | | | | | | | | |
| Absent | 0 | | | | | | | | |
| Mild | 1 | | | | | | | | |
| Severe | 2 | | | | | | | | |
| **Dizziness** | **Y/N** | | | | | | | | |
| **Constipation** | **Y/N** | | | | | | | | |
| **Hypersalivation:** | **Y/N** | | | | | | | | |
| Absent | 0 | | | | | | | | |
| Mild | 1 | | | | | | | | |
| Severe | 2 | | | | | | | | |
| **Headache** | **Y/N** | | | | | | | | |
| **Perspiration** | **Y/N** | | | | | | | | |
| **Nausea** | **Y/N** | | | | | | | | |
| **Enuresis** | **Y/N** | | | | | | | | |
| **Infection** (*if yes – alert MO - repeat FBC immediately)* | **Y/N** | | | | | | | | |
| **Signature** | | | | | | | | | |

## 5.4 Clozapine Outpatients - Ongoing Monitoring - Summary

### Months 1 – 6:

| PARAMETER | Base-line | WEEK 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 22 | 26 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Haem** | | | | | | | | | | | | | | | | | | | | | |
| FBC | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * |
| **Physical** * | | | | | | | | | | | | | | | | | | | | | |
| BP | * | * | * | * | * | | * | | | | | | * | | | | | | * | | * |
| Pulse Rate | * | * | * | * | * | | | | | | | | * | | | | | | | | * |
| Temp | * | * | * | * | * | | | | | | | | * | | | | | | | | * |
| Resp Rate | * | * | * | * | * | | | | | | | | | | | | | | | | |
| **Cardiac** | | | | | | | | | | | | | | | | | | | | | |
| Troponin I or T | * | * | * | * | * | | * | | | | | | | | | | | | * | | * |
| CRP | * | * | * | * | * | * | * | | | | | | | | | | | | * | | * |
| ECG | * | □ | □ | □ | * | | | | | | | | | | | | | | | | * |
| Echo | * | | | | | | | | | | | | | | | | | | | | * |
| **Metabolic** | | | | | | | | | | | | | | | | | | | | | |
| Gluc / HbA1c | * | | | | * | | | | | | | | * | | | | | | | | * |
| Lipids | * | | | | | | | | | | | | * | | | | | | | | * |
| Waist/ Weight/ BMI | * | | | | * | | | | * | | | | * | | | | * | | | * | * |
| **Other** | | | | | | | | | | | | | | | | | | | | | |
| EUC | * | | | | | | | | | | | | | | | | | | | | * |
| LFTs | * | | | | | | | | | | | | | | | | | | | | * |

□ ECG if indicated (e.g. interacting medications)

### Month 7 Onwards:

| PARAMETER | MONTH 7 | 8 | 9 | 10 | 11 | 12 | THEN THEREAFTER Every month (4 weekly) | Every 3 months | Every 6 months | Every 12 months | COMMENTS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Haem** | | | | | | | | | | | |
| FBC | * | * | * | * | * | * | * | | | | 4 Weekly thereafter unless amber / red result or therapy interruption. Refer to Sections 5.5.2 and 5.6 |
| **Physical** | | | | | | | | | | | |
| BP | | | * | | | * | | * | | | Refer to Section 5.13 for physical observations if Clozapine is being initiated in the community |
| Pulse Rate | | | * | | | * | | * | | | |
| Temp | | | * | | | * | | * | | | |
| **Cardiac** | | | | | | | | | | | |
| Troponin I / T | | | | | | * | | | * | | Annually thereafter unless clinically indicated |
| CRP | | | | | | * | | | * | | Annually thereafter unless clinically indicated |
| ECG | | | | | | | | | | * | Annually thereafter unless clinically indicated |
| Echo | | | | | | | | | | | Years 1, 2,5 and 10 |
| **Metabolic** | | | | | | | | | | | |
| Gluc / HbA1c | | | * | | | * | | | * | | At least 6 monthly thereafter |
| Lipids | | | * | | | * | | | * | | At least 6 monthly thereafter |
| Waist/ Weight/ BMI | | | * | | | * | | * | | | 3 monthly thereafter |
| **Other** | | | | | | | | | | | |
| EUC | | | | | | * | | | * | * | 6 monthly thereafter |
| LFTs | | | | | | * | | | * | | 6 monthly thereafter |

**5.5**

## SESLHD PHARMACY

## CLOZAPINE – COMMUNITY PHARMACY DISPENSING TRANSFER FORM

| | |
|---|---|
| **Patient Name** | **D.O.B.** |
| **MRN** | **Clopine Number** |
| **Address** | |
| **Case Manager** | |

**Community Pharmacy**

Community Pharmacy added as "Clinic" on ClopineCentral Patient Profile: (Tick: □ )

| |
|---|
| Date of Last Supply: |
| Dose Dispensed: |
| Quantity Supplied (Number of Days): |

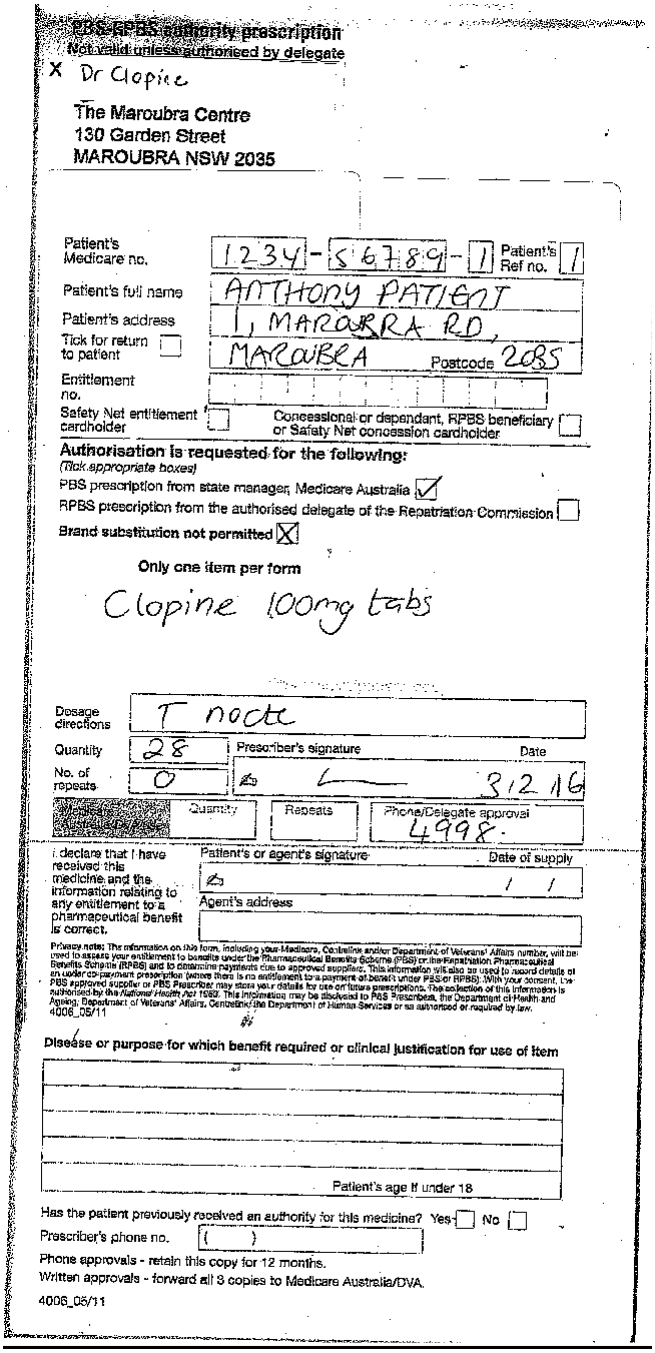
Tablet strengths supplied:

| Strength of Tablet | Dose | Quantity |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

| |
|---|
| Next blood test due: |
| **Next Supply Due:** |

| Name of Pharmacist | Signature | Date |
|---|---|---|
| | | |

## 5.6 Example Clozapine PBS Authority Prescription – Community Pharmacy Dispensing



PBS-RPBS authority prescription
Not valid unless authorised by delegate

X Dr Clopine

The Maroubra Centre
130 Garden Street
MAROUBRA NSW 2035

Patient's Medicare no. 1234 - 56789 - 1 Patient's Ref no. 1

Patient's full name ANTHONY PATIENT

Patient's address 1, MAROUBRA RD,

Tick for return to patient ☐ MAROUBRA Postcode 2035

Entitlement no.

Safety Net entitlement cardholder ☐ Concessional or dependant, RPBS beneficiary or Safety Net concession cardholder ☐

**Authorisation is requested for the following:**
*(Tick appropriate boxes)*

PBS prescription from state manager, Medicare Australia ☑

RPBS prescription from the authorised delegate of the Repatriation Commission ☐

**Brand substitution not permitted** ☒

**Only one item per form**

Clopine 100mg tabs

Dosage directions T nocte

Quantity 28 Prescriber's signature Date

No. of repeats 0 3/2/16

Quantity | Repeats | Phone/Delegate approval 4998.

I declare that I have received this medicine and the information relating to any entitlement to a pharmaceutical benefit is correct. Patient's or agent's signature Date of supply / /

Agent's address

Privacy note: The information on this form, including your Medicare, Centrelink and/or Department of Veterans' Affairs number, will be used to assess your entitlement to benefits under the Pharmaceutical Benefits Scheme (PBS) or the Repatriation Pharmaceutical Benefits Scheme (RPBS) and to determine payments due to approved suppliers. This information will also be used to record details of an under co-payment prescription (where there is no entitlement to a payment of benefit under PBS or RPBS). With your consent, the PBS approved supplier or PBS Prescriber may store your details for use on future prescriptions. The collection of this information is authorised by the *National Health Act 1953*. This information may be disclosed to PBS Prescribers, the Department of Health and Ageing, Department of Veterans' Affairs, Centrelink, the Department of Human Services or as authorised or required by law.
4006_05/11

**Disease or purpose for which benefit required or clinical justification for use of item**

Patient's age if under 18

Has the patient previously received an authority for this medicine? Yes ☐ No ☐

Prescriber's phone no. ( )

Phone approvals - retain this copy for 12 months.
Written approvals - forward all 3 copies to Medicare Australia/DVA.

4006_05/11

## 6. AUDIT

QARS Audit monthly: SESLHD_MH_Clozapineclinic_audit
Annual completion of Registration Form for ClopineCentral Centres (ClopineCentral Protocol Booklet)

## 7. REFERENCES

NSW Health
GL2022_011 - Monitoring Clozapine – induced Myocarditis
PD2022_032 - Medication Handling
NSW Health Co-payment Consent Form

SESLHD
SESLHDPD/182 – Medicine: Off-label use of registered medicines and use of unlicensed medicines
SESLHDPR/734 - High-Risk Medicines Management
State-based Clozapine Management solution (SESLHD sites only)

Other
YOUR Connection to Clopine patient care
National Inpatient Medication Chart (NIMC) - Clozapine Titration guide
Choice and Medication for information on Clozapine
Choice and Medication Atropine eye drops for CIH
Clopine Product Information Leaflet
ADRAC Adverse Drug Reaction Reporting Form ("Blue Card")
PBS Website

## 8. VERSION AND APPROVAL HISTORY

| Date | Version | Version and approval notes |
|---|---|---|
| November 2015 | 1 | Lisa John Pharmacist - Clozapine Working Group, POWH |
| December 2015 | 2 | Peter Baldas – District Policy Support Officer |
| January 2016 | 3 | Lisa John Pharmacist - Clozapine Working Group, POWH |
| February 2016 | 4 | Discussion at the Document Development Committee February 2016 to establish consultation process |
| July 2016 | 5 | Endorsed by District MHS Clinical Council. |
| September 2017 | Draft | Formatting reviewed by Executive Services |
| September 2017 | Draft | Endorsed by DQUM Committee with minor change to document using terms "client" and "patient". |
| November 2017 | 0 | Endorsed by SESLHD Clinical and Quality Council for publishing. |
| May 2018 | 0 | Risk rating changed from High to Medium – approved by Executive Sponsor |
| June 2019 | 1 | Amended to reflect all patients on Clozapine maintenance are to be |

| | | |
|---|---|---|
| | | reviewed by a Consultant Psychiatrist at least every six months. |
| August 2019 | 1 | "Review" defined as a face-to-face consultation.<br>Endorsed by SESLHD Mental Health Service DDCC.<br>Endorsed by SELSHD Mental Health Service Clinical Council.<br>Minor review approved by Executive Sponsor.<br>Published by Executive Services. |
| October 2019 | 2 | Review of medications and process requested by working party lead by Lisa John. Working party nominated by DDCC: Karl Symonds, Ronelle Moonsamy, Dr Sara Buten, Dr Nasreen Pathan and Dr Joe Fang |
| November 2023 | 3 | Major revision by SESLHD MHS Clozapine Working Group, Clozapine SMO, Community Service Manager, all 3 site Clozapine Coordinators and MH Lead Pharmacist |
| February 2024 | 3.1 | Reviewed by MHS Lead Pharmacist Selina Leung and the Clozapine Working Group. Pathway included at the request of the MHS Standard 4 Committee for hyoscine hydrobromide and atropine to be included as a possible pathway for CIH. Consideration given to Community/Day patient re-titration (pathway held over for later review). |
| April 2024 | 3.2 | Circulated to DDCC for review – minimal feedback received. Endorsed out of session. Progressed to MHS Clinical Council for out-of-session review/endorsement. Endorsed out-of-session. |
| May 2024 | 3.2 | Endorsed by SESLHD Drug and Therapeutics Committee. |
| 19 August 2024 | 3.2 | Approved by SESLHD Clinical and Quality Council. Amendments made to remove 'in SESLHD Mental Health Services' from the title and addition of information in red under Section 1 – Policy Statement. |

## APPENDIX 1: Clozapine Roles

| Consultant Psychiatrists/Psychiatry Trainees/Junior Medical Officer/Intern | Mental Health Service Clozapine Coordinator |
|---|---|
| 1. Register as a Clozapine prescriber with *ClopineCentral* (a website provided by the medication's supplier).<br>2. Complete eMeds training module "Ordering Clozapine – 259386193" prior to registering as a prescriber.<br>3. Be familiar with Clozapine prescribing information, guidelines, and protocols.<br>4. Provide medication information to the consumer (risks vs benefits). (choiceandmedication.org)<br>5. Ensure the consumer has read the Clopine Monitoring System Privacy Statement and signed the Clopine Consent Form (if the consumer is unable to give informed consent at the time of commencement, this must be documented).<br>6. Liaise with the Clozapine Coordinator or site Pharmacist to register the consumer with *ClopineCentral* before starting treatment with Clozapine.<br>7. Ensure all preliminary tests are completed, the consumer is suitable to commence Clozapine therapy and that ongoing monitoring occurs.<br>8. On commencement or re-titration of clozapine the inpatient treating team to refer all clients to the community mental health team for allocation of a primary clinician.<br>9. The psychiatry trainee is responsible for clinically reviewing the consumer, check all blood results (including Full Blood Count (FBC), cardiac and metabolic blood results) and enter the FBC into the *ClopineCentral* database or request the site Clozapine Coordinator or site pharmacist to enter the results into the database.<br>10. The Psychiatry Trainee is to check for any interruption to treatment.<br>11. Conduct metabolic monitoring unless there is proof of an actively involved General Practitioner (GP) and/or physician managing metabolic and other physical health issues. This includes appropriate referral (e.g., to a GP, medical specialist or the SESLHD Keeping the Body in Mind [KBIM] team where indicated) when physical health issues are identified. Inpatient Units to monitor weekly, community teams to monitor 3 monthly and GP shared care consumers to be monitored 3 monthly.<br>12. In partnership with the treating Consultant Psychiatrist, optimise psychosocial functioning through referrals to appropriate agencies.<br>13. Inpatient Mental Health Psychiatry Trainee is to liaise with the site Clozapine Coordinator on | 1. Register Pharmacist with *ClopineCentral.*<br>2. Facilitate the registration of new outpatients with *ClopineCentral.*<br>3. Ensure the required blood tests are carried out for each consumer, the results checked promptly, and appropriate action taken (i.e., that the medication, repeat FBC, white cell count and neutrophil level etc. are ordered where necessary).<br>4. Transmit all registrations, consumer data and blood results from the Clozapine Clinic to *ClopineCentral*.<br>5. Act as a point of contact for, and be aware of, all communications between the site Clozapine Clinic and *ClopineCentral*.<br>6. Ensure that the site Clozapine Clinic operates within the *ClopineCentral* protocol.<br>7. Ensure that *ClopineCentral* has the most up-to-date details as soon as they are available. If the Clozapine Clinic Coordinator relocates, the Clozapine Coordinator must nominate, in consultation with site executives, another registered person to take on the role of Clozapine Coordinator until a new coordinator is appointed and registered with *ClopineCentral*.<br>8. Ensure the provision of coordinated care by facilitating effective liaison between consumers, their families and carers, Case Managers, Medical Officers, Nursing staff, Pharmacists and GPs.<br>9. Document all clinical interactions pertaining to consumer treatment and care planning on the Clozapine Monitoring Form.<br>10. At the consumer's first visit, ensure referral documentation has been completed and is accurate.<br>11. Register with *ClopineCentral* and adhere to the *ClopineCentral* protocols.<br>12. Ensure that all Medical Officers prescribing Clozapine are registered with *ClopineCentral*.<br>13. Enter FBC results into the *ClopineCentral* database following the consumer's appointment at the Clozapine Clinic.<br>14. Follow up the blood results of consumers in the amber and red zones and conduct |

admission and discharge.

14. Inpatient Mental Health Psychiatry Trainees are to provide the site Pharmacist with a prescription for Clozapine on discharge for enough supply until the consumer's next outpatient appointment, if required, and ensure relevant blood pathology, including FBC results, are current.
15. The Inpatient Mental Health Psychiatry Trainee is required to transfer the care of the consumer on clozapine to the clozapine clinic, with a verbal ISBAR handover documented in eMR, an appointment within 7 days of discharge in the clozapine clinic documented in the consumers discharge summary. SESLHDPR/735 - Admission and Discharge/Transfer of Care Processes for Acute Mental Health Inpatient Units (including Direct Admissions for Consumers linked with Community Mental Health)
16. Conduct a verbal ISBAR handover with the relevant Community Mental Health team to ensure continuity of care upon discharge from the inpatient unit.
17. Ensure the consumer is aware of the appointment and there are appropriate arrangements for blood testing prior to the outpatient appointment.
18. The Psychiatry Trainee is responsible for checking the FBC, writing a prescription for Clozapine at each appointment and ensuring that the Clozapine Monitoring Form is completed.
19. Document all clinical interactions pertaining to consumer treatment and care planning on the Clozapine Monitoring Form.
20. Attend to safety monitoring protocols as per the consumer's treatment plan, including echocardiograms and cardiometabolic health reviews as per Clopine Central Guidelines Clopine Hub The consumer is to be reviewed face to face by the Consultant Psychiatrist every 6 months and the Psychiatry Trainee every 3 months.

**Consultant Psychiatrist Only Tasks:**

21. Community Consultant every 6 months is to monitor the consumer's mental state and physical health and psychiatry trainee every 3 months.
22. Monitor and address the side effects of Clozapine. (Community Consultant psychiatrist every 6 months, and psychiatry trainee every 3 months).
23. Changes to any Clozapine prescription (including change of dose) can only be made by the Consultant psychiatrist or another medical officer after consultation with the Consultant psychiatrist.
24. Provide a written treatment update to the consumer's GP at a minimum of every 6 months.

timely data entry of repeat blood tests and their results into *ClopineCentral*. (Twice weekly blood tests are required for the amber zone, and daily blood tests for the red zone, until results return to the normal 'green' range.)

15. Undertake physical observations i.e., blood pressure, temperature, respiratory rate and pulse rate of Clozapine Clinic attendees.
16. Monitor each consumer's weight, waist circumference and Body Mass Index (BMI) as per the Clozapine protocol.
17. If a consumer fails to attend an appointment, follow SESLHDBR/41 - Consumer Missed Appointments – management of
18. Maintain the site contribution to the MHS Clozapine database by ensuring the Clozapine Monitoring Form is always up-to-date.
19. Facilitate dispensation from *ClopineCentral* for extra supply of medication if the consumer will miss a scheduled appointment due to travel.
20. Follow-up post-monitoring FBC blood tests (required for one month after cessation of clozapine, at the previous frequency).

| Pharmacists (Inpatient) | Pharmacist (Outpatient) |
|---|---|
| 1. Pharmacist is a current registered pharmacist with ClopineCentral. Ensure the consumer has a status of 'active/approved' on *ClopineCentral* prior to dispensing Clozapine.<br>2. Check that the FBC was conducted on the correct date and that results are in the 'green' range.<br>3. Ensure that appropriate monitoring has been organised if an 'amber' or 'red' FBC result has been obtained (twice weekly blood tests are required for the 'amber' range, and daily blood tests for the 'red' range, until results return to normal ('green' range).<br>4. Enter blood test details into *ClopineCentral.*.<br>5. Ensure continuity of supply of medication for consumers on discharge.<br>6. Provide information and education to inpatients/consumers, families and staff.<br>7. Liaise with the site Clozapine Coordinator. | 1. Pharmacist is a current registered pharmacist with ClopineCentral. Ensure the consumer has a status of 'active/approved' on ClopineCentral prior to dispensing Clozapine.<br>2. Check that the FBC was conducted on the correct date and that results are in the 'green' range.<br>3. Ensure that appropriate monitoring has been organised if an 'amber' or 'red' FBC result has been obtained (twice weekly blood tests are required for the 'amber' range, and daily blood tests for the 'red' range, until results return to normal ('green' range)<br>4. Enter blood test details into ClopineCentral<br>5. Dispense clozapine to consumers according to Hospital Outpatient Prescription, ensuring appropriate PBS Streamline Authority code is used<br>6. Ensure quantity of clozapine dispensed corresponds to prescription<br>7. Enter dispensing event details into ClopineCentral<br>8. Ensure patient has a valid copy of NSW Health HSD Copayment Form on file in Pharmacy Department |
| **Mental Health Primary Clinician/Care Co-ordinator** | **Inpatient Mental Health Nurses** |
| 1. Ensure the consumer attends pathology tests and review appointments weekly or monthly (as appropriate).<br>2. Ensure the consumer is linked to a pharmacy that is registered to dispense Clozapine.<br>3. Notify the prescribing doctor of any incidents or concerns in relation to the consumer's clinical status.<br>4. Assist medical staff during periodic safety monitoring for each consumer on Clozapine.<br>5. Ensure metabolic monitoring occurs. | 1. Complete nursing observations as per the Clozapine protocol SESLHDPR/591 - Clozapine – Guidelines for Prescribing, Administering and Monitoring<br>2. Administer medication, monitor the consumer's progress and report any side effects to the medical team.<br>3. Liaise with the relevant Community Mental Health team to ensure continuity of care upon discharge from hospital.<br>4. Liaise with the site Clozapine Coordinator.<br>5. Ensure there is sufficient supply of clozapine |