

Clozapine: Proposed changes to blood monitoring and prescribing requirements

Consultation questions for healthcare professionals

August 2025

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Overview

This Medsafe consultation seeks your feedback on proposed changes to the blood monitoring and prescribing requirements for clozapine. We are running this consultation on behalf of the companies that distribute clozapine-containing medicines in New Zealand.

Clozapine is an antipsychotic medicine used in treatment-resistant schizophrenia. To increase the safety of people taking clozapine, there are restrictions on use of the medicine in New Zealand. In some people, clozapine can cause neutropenia (a reduction in neutrophils, a type of white blood cell), increasing the risk of severe infections. Currently, patients taking clozapine must have regular blood tests throughout treatment to check for neutropenia.

Medsafe has been reviewing the clozapine blood monitoring requirements and we have identified several opportunities to optimise them.

With the expanded roles of some healthcare professions, we are also seeking your feedback on who should initiate clozapine treatment and which prescribers can continue clozapine treatment.

We have sought initial expert advice on these proposals from representatives from the Ministry of Health, Te Whatu Ora, The Royal Australian & New Zealand College of Psychiatrists and the pharmaceutical companies marketing these medicines.

We propose four major changes to the clozapine blood monitoring requirements:

1. Duration of blood monitoring
2. Monitoring thresholds
3. Management of low blood count results ('red' results)
4. Who can prescribe clozapine.

We are also seeking feedback about Point-of-Care testing and educational needs for healthcare professionals.

The Related documents section below contains background information for this consultation. The Evidence review summarises the evidence we used to inform the proposed changes to clozapine blood monitoring requirements. The paper we presented to the Medicines Adverse Reactions Committee (MARC) is more in-depth analysis of the evidence.

Who can take part?

We are seeking feedback from **New Zealand-based healthcare professionals** for this consultation. There is a separate consultation for consumers [here](#).

To assist in the analysis of submissions, Medsafe will only accept submissions made through this consultation website. However, we have attached the consultation document below as a PDF, and you can view it online, download it and/or print it.

Other information

If you have any questions or requests about your response, please contact us at medsafeadrquery@health.govt.nz.

Related

- Evidence review [*the PDF is attached in the online survey*]
- Consultation questions [*the PDF is attached in the online survey*]
- [Medsafe's report to the MARC: review of clozapine safety and monitoring requirements](#)

What happens next?

We will consider the responses and decide what changes, if any, to recommend to the Minister's delegate.

We will publish the outcome on the [Outcome of Consultations](#) web page on the Medsafe website.

Any changes to the clozapine monitoring requirements will take time to implement. This will include time to support healthcare professionals and patients to understand and be ready for any changes.

Introduction

This consultation is for New Zealand-based healthcare professionals. There is a separate consultation for consumers [here](#).

Please complete the following introductory questions before starting the survey.

Questions 1 and 3 are compulsory and you need to answer them before moving to the rest of the survey.

Publishing submissions

We intend to publish the submissions from this survey, but we will only publish your submission if you give permission. If you do not want your submission published, please let us know below.

Official Information Act requests

Your submission will be subject to requests made under the Official Information Act (even if it hasn't been published). Please let us know of any information that you would like us to remove from your response. We will take this into account when responding to requests under the Official Information Act.

1. Please select from below which best describes you.

(Required)

- ☐ Medical doctor
- ☐ Pharmacist
- ☐ Nurse
- ☐ Other healthcare professional

2. Please describe your vocational speciality or type of practice.

3. May we publish your submission?

(Required)

- ☐ Yes. You may publish this submission.
- ☐ No. Do not publish this submission.

4. Please describe the information in your submission that you would like us to withhold.

Duration of blood monitoring

Current requirements

People who are prescribed clozapine and healthcare professionals involved in the treatment, monitoring and dispensing of clozapine must be registered with a Clozapine Patient Monitoring System (CPMS). Blood test results are stored in the CPMS. For more information about the current monitoring requirements, see the pharmaceutical companies' [clozapine data sheets](#).

People taking clozapine must have regular blood tests to check white blood cell counts (WBC) and absolute neutrophil counts (ANC). These blood tests are required weekly during the first 18 weeks of treatment, then every 4 weeks throughout treatment. Blood test results are valid for 72 hours, meaning that the patient must collect their next prescription for clozapine during this time frame.

Proposals for change

Medsafe proposes that blood monitoring can be stopped after a defined period of time (we propose 1, 2 or 3 years) if the patient meets the following criteria:

- has been taking clozapine consistently for [1, 2 or 3] years
- has a history of ANC $\geq 1.0 \times 10^9/L$ (or $\geq 0.5 \times 10^9/L$ in benign ethnic neutropenia [BEN]) while taking clozapine
- has had no previous confirmed clozapine-induced severe neutropenia/agranulocytosis
- is adherent to treatment
- is independent and able to self-manage their medical care
- is able to identify signs and symptoms of infection. If they occur, is able to notify a healthcare professional to obtain a blood test and be medically assessed.

We expect that most people who take clozapine will meet the above criteria.

After stopping regular blood monitoring, agranulocytosis monitoring should continue. The patient would self-monitor for signs and symptoms such as fever, fatigue, sore throat, mouth ulcers and other symptoms of infection. If these signs and symptoms occur, the patient would need to have a blood test to check their ANC. Therefore, the patient must be able to recognise and report signs/symptoms of possible infection to their healthcare professional.

The CPMS will have a new status to indicate that the patient is eligible for clozapine treatment, but they do not need regular blood tests.

Consultation questions

5. Do you agree that ongoing blood monitoring can be stopped after a period of time?

- ☐ Yes
- ☐ No

6. When should blood monitoring be stopped?

- ☐ After 1 year of continuous clozapine treatment
- ☐ After 2 years of continuous clozapine treatment
- ☐ After 3 years of continuous clozapine treatment
- ☐ Other. Please suggest an alternative below.

7. Please select the criteria that will identify the patients who can stop ongoing blood monitoring (you can choose more than one option).

- ☐ Have been taking clozapine consistently for [1, 2 or 3] years
- ☐ Have a history of ANC $\geq 1.0 \times 10^9/L$ ($\geq 0.5 \times 10^9/L$ in BEN) while on clozapine
- ☐ Have had no previous confirmed clozapine-induced severe neutropenia/agranulocytosis
- ☐ Are adherent to treatment
- ☐ Are independent and self-manage their medical care
- ☐ Are able to identify signs and symptoms of infection, notify a healthcare professional accordingly and obtain a blood test
- ☐ Other. Please comment below.

8. Do you agree that after stopping ongoing blood monitoring, monitoring of clozapine-induced agranulocytosis should be via signs and symptoms of infection, and if these occur, the patient should have a blood test to check ANC?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

9. How long should blood tests be valid for?

- ☐ 48 hours (ie, a reduction)
- ☐ No need to change, keep it at 72 hours
- ☐ 96 hours (ie, an increase)
- ☐ Other. Please suggest an alternative below.

10. Please provide the rationale for your answer to question 9 (ie, how long blood tests should be valid for).

Monitoring thresholds

Current requirements

A 'traffic light' system illustrates the thresholds for actions to take with clozapine following a blood test result, as shown in Table 1.

Table 1: Monitoring thresholds and patient management for clozapine blood counts

Thresholds			Patient Management
Colour	Blood cell count (x10 ⁹ /L)		
	WBC	ANC	
Green	≥3.5	≥2.0	Continue clozapine
Amber	≥3.0 – <3.5	≥1.5 – <2.0	Continue clozapine Increase blood test monitoring to twice weekly until blood counts stabilise or increase
Red	<3.0	<1.5	Stop clozapine Daily blood tests until blood counts recover Monitor for infection If a subsequent blood test confirms the red result, clozapine must not be restarted

Key: WBC = white blood cells; ANC = absolute neutrophil count.

Source: Viatrix. 2024. *Clozaril New Zealand Data Sheet* 25 July 2024 URL: www.medsafe.govt.nz/profs/Datasheet/c/Clozariltab.pdf (accessed 5 March 2025).

Proposed changes

Medsafe proposes measuring ANC only, changing the ANC thresholds for each colour and introducing different thresholds for benign ethnic neutropenia (BEN), as outlined in Table 2.

Table 2: Proposed changes to blood counts, monitoring thresholds and patient management

Thresholds				Proposed Patient Management
Colour	Current (x10 ⁹ /L)	Proposed (x10 ⁹ /L)		
	ANC	ANC (standard)	ANC (BEN)	
Green	≥2.0	≥1.5	≥1.0	Continue clozapine
Amber	≥1.5 – <2.0	1.0 – <1.5	0.5 – <1.0	Continue clozapine Increase monitoring to twice weekly until ANC stabilises or increases
Red	<1.5	<1.0	<0.5	Refer to Figure 1 and Table 3 in the next section

Key: ANC = absolute neutrophil count; BEN = benign ethnic neutropenia

Sources:

Novartis Pharmaceuticals Corporation. 2023. *Clozaril United States Label* May 2023. URL: www.accessdata.fda.gov/drugsatfda_docs/label/2023/019758s103lbl.pdf (accessed 5 March 2025).

Verdoux H, et al. 2025. The time has come for revising the rules of clozapine blood monitoring in Europe. A joint expert statement from the European Clozapine Task Force. *Eur Psychiatry* 68(1): e17. DOI: 10.1192/j.eurpsy.2024.1816 (accessed 5 March 2025).

Note we are not proposing any changes to the special monitoring arrangements (eg, patients undergoing chemotherapy) where the thresholds for monitoring may be adapted under the guidance of a consultant haematologist and the pharmaceutical company.

Consultation questions

11. Do you agree that blood monitoring should measure ANC only (ie, remove the requirement for WBC)?

- ☐ Yes
- ☐ No. Please state your reasons below.

12. For standard monitoring (ie, patients who do not have BEN), do you agree with the 'green' ANC threshold change to $\geq 1.5 \times 10^9/L$?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

13. For standard monitoring, do you agree with the 'amber' ANC threshold range change to $1.0 - <1.5 \times 10^9/L$?

- ☐ Yes
- ☐ No. Please suggest an alternative:

14. For standard monitoring, do you agree with the 'red' ANC threshold change to $<1.0 \times 10^9/L$?

- ☐ Yes
- ☐ No. Please suggest alternative:

15. For people with BEN, do you agree with the introduction of ANC thresholds for 'green', 'amber' and 'red'?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

16. Do you have any other comments or feedback about Medsafe's proposals for changes to blood counts and monitoring thresholds for clozapine?

Management of low ANC results ('red' results)

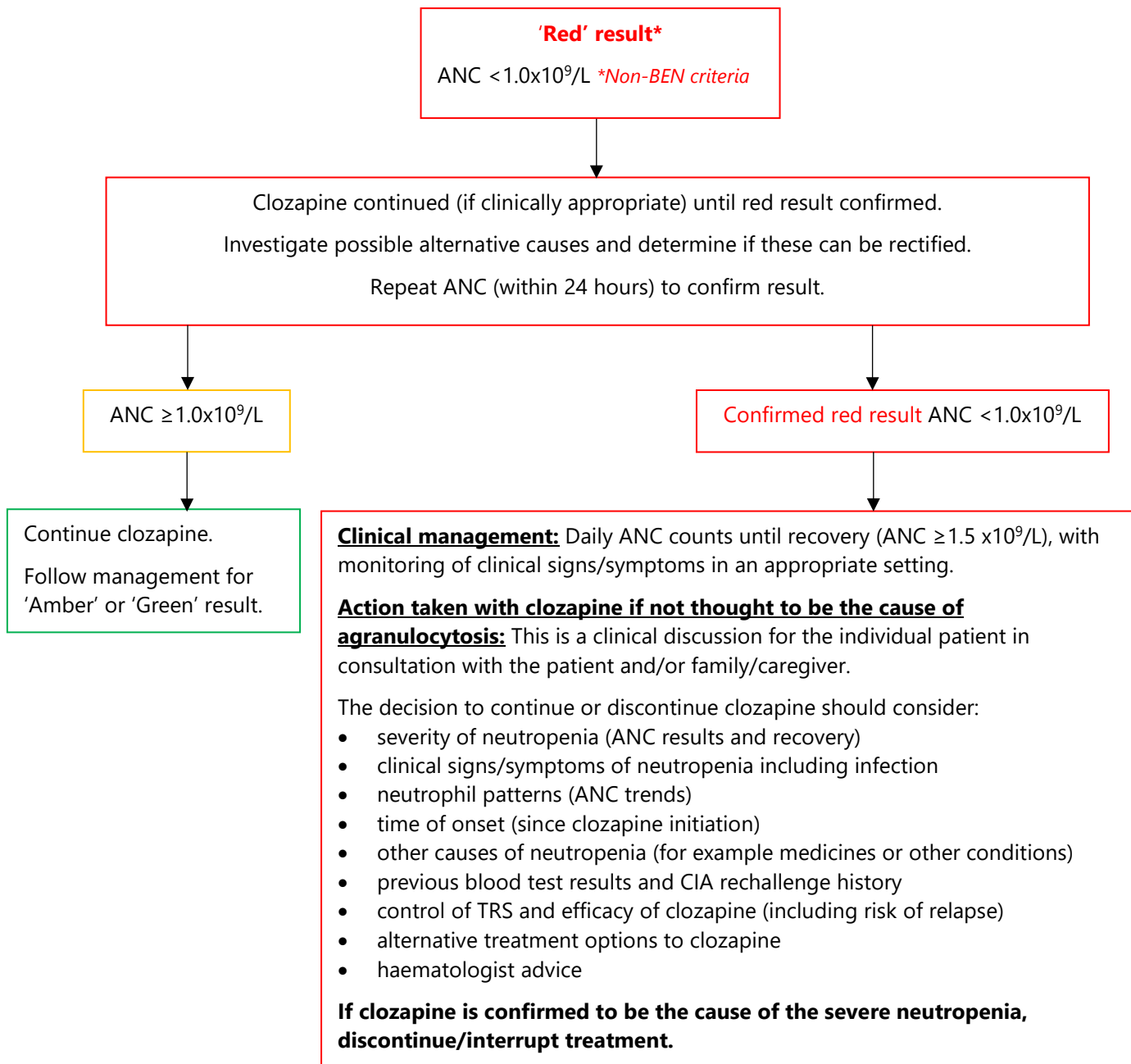
Current requirements

Currently, people who experience a 'red' result with clozapine must stop treatment. If the 'red' result is confirmed by a subsequent blood test, clozapine must not be restarted. However, stopping clozapine suddenly can lead to a rapid deterioration in the patient's mental state and cause symptoms related to cholinergic rebound.

Proposed changes

The risk that a 'red' result represents clozapine-induced severe neutropenia may depend on many factors, such as time to onset, neutrophil patterns (quick recovery versus progressive sustained drop), and use of other medicines. Medsafe proposes that management of 'red' blood test results for people taking clozapine changes from an immediate stop of clozapine to an immediate clinical review to determine the cause. The patient will require daily blood monitoring during this investigation while maintaining their clozapine treatment (see Figure 1).

Figure 1: Management of a 'red' ANC result



Key: ANC = absolute neutrophil count; BEN = benign ethnic neutropenia; CIA = clozapine-induced agranulocytosis;
TRS = treatment-resistant schizophrenia

If a patient has stopped clozapine treatment due to a red result, we propose that treatment can be restarted under the conditions outlined in Table 3.

Table 3: Actions to take with clozapine after treatment interruption

Reason for interruption	Action to take with clozapine
Interruption due to a red result, but NOT related to clozapine	Restart clozapine when ANC has recovered to green and when the patient is physically well. Blood monitoring can return to the patient's usual frequency (including if the patient had no monitoring) unless additional monitoring is clinically indicated.
Red result CAUSED by clozapine during the regular blood monitoring period <i>OR</i> after monitoring period has ended	Restarting clozapine is generally not recommended – unless the benefits outweigh the risks in an individual patient. Only restart clozapine when ANC has recovered to green and when the patient is physically well. Restart blood monitoring as if they are a 'new' patient (ie, weekly ANC for 18 weeks, then 4-weekly ANC). Consider using a slower titration of clozapine. Clearly document the decision to restart in the patient's clinical notes and CPMS.
Interruption NOT due to a red result after blood monitoring period has ended	Restart clozapine. There is no need to restart blood monitoring, irrespective of the duration of interruption.

Key: ANC = absolute neutrophil count; CPMS = clozapine patient monitoring system.

Consultation questions

17. Do you agree that the action taken with clozapine following a confirmed 'red' blood test result should first involve an investigation of the cause and a discussion with the individual rather than immediately stopping clozapine?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

18. Please select the relevant factors to consider when deciding whether to continue clozapine treatment. Select all those that apply.

- ☐ Severity of neutropenia (ANC results and recovery)
- ☐ Clinical signs/symptoms of neutropenia including infection
- ☐ Neutrophil patterns (ANC trends)
- ☐ Time of onset (since clozapine initiation)
- ☐ Other causes of neutropenia (for example medicines or other conditions)
- ☐ Previous blood test results and clozapine-induced agranulocytosis (CIA) rechallenge history
- ☐ Control of treatment-resistant schizophrenia and efficacy of clozapine (including risk of relapse)
- ☐ Alternative treatment options to clozapine
- ☐ Haematologist advice
- ☐ Patient and/or caregiver input
- ☐ Other. Please comment below.

19. Do you agree that if clozapine caused the severe neutropenia, then clozapine should be discontinued?

- ☐ Yes – temporarily
- ☐ Yes – permanently
- ☐ No. Please suggest an alternative below.

20. If clozapine-induced severe neutropenia is suspected, should there be an option to reduce the dose of clozapine as opposed to immediate discontinuation?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

21. Do you agree that clozapine rechallenge following suspected clozapine-induced agranulocytosis can be considered, if the benefits outweigh the risks for the individual?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

22. Do you agree that if clozapine is rechallenged following suspected clozapine-induced severe neutropenia/agranulocytosis, the monitoring frequency and duration should start as for a 'new' patient (ie, weekly blood tests for the first 18 weeks, then every 4 weeks)? Select all those that apply.

- ☐ Yes – if the patient has been taking clozapine for less than a year
- ☐ Yes – no matter how long the patient has been taking clozapine
- ☐ No – if the patient has been taking clozapine for less than a year, they should go back to the previous frequency
- ☐ No – if the patient has been taking clozapine for long enough not to require blood monitoring
- ☐ I have an alternative suggestion. Please describe below.

23. Do you agree that if a patient experiences severe neutropenia that is not caused by clozapine and restarts treatment, the frequency of monitoring can return to the patient's usual monitoring frequency (which could be no monitoring)?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

24. Do you agree that patients who have stopped ongoing monitoring and who have interrupted treatment for any duration for reasons not related to neutropenia can continue with no haematological monitoring when clozapine is restarted?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

25. Do you have any other considerations or comments relating to Medsafe's proposals for changes to management of 'red' blood test results?

Who can prescribe clozapine?

Current requirements

Under the [current restrictions](#), only the following healthcare professionals may prescribe clozapine.

- Registered medical practitioners as defined in the Health Practitioners Competence Assurance Act 2003 who are certified by the Medical Council of New Zealand as competent in the scope of practice of psychiatry (ie, psychiatrists).
- Medical practitioners or nurse practitioners, who are under the supervision of the persons referred to above.
- Medical officers who are in the employment of Te Whatu Ora, and are under the supervision of persons who are registered medical practitioners as defined in the Health Practitioners Competence Assurance Act 2003 who are certified by the Medical Council of New Zealand as competent in the scope of practice of psychiatry.
- Registered medical practitioners as defined in the Health Practitioners Competence Assurance Act 2003 who are registered with the Medical Council of New Zealand within the vocational scope of practice of general practice. The general practitioner must be continuing the prescribing of clozapine for a specific patient whose illness is well-controlled in collaboration, or following consultation, with a Community Mental Health Team.

Proposed changes to clozapine prescribing restrictions

Following a 2024 [petition](#) to the House of Representatives to remove the clozapine prescribing restrictions for nurse practitioners, Medsafe proposes amending the restrictions to those shown in Table 4.

Table 4: Proposed prescribing restrictions for clozapine

Prescriber type	Initiate prescribing (new patients and patients restarting treatment)	Continue prescribing
Psychiatrist ^a	Yes	Yes
Medical practitioner ^b under the supervision or in consultation with a psychiatrist	Yes	Yes
Medical practitioner ^b working in a community mental health team	No	Yes
Nurse practitioner ^c under the supervision or in consultation with a psychiatrist	No	Yes
Nurse practitioner ^c working in a community mental health team	No	Yes
Nurse prescriber ^d under the supervision of a psychiatrist	No	Yes
Pharmacist prescriber ^e under the supervision of a psychiatrist	No	Yes

Notes

- Psychiatrist: Registered medical practitioners as defined in the Health Practitioners Competence Assurance Act 2003 who are certified by the Medical Council of New Zealand as competent in the scope of practice of psychiatry.
- Medical practitioners: Registered medical practitioners as defined in the Health Practitioners Competence Assurance Act 2003 who are registered with the Medical Council of New Zealand within a vocational scope of practice or general scope of practice. This definition includes vocationally trained hospital consultants, GPs and RMOs practicing in a general scope.
- Nurse practitioner: Registered nurse as defined in the Health Practitioners Competence Assurance Act 2003 and certified by the Nursing Council of New Zealand in the scope of nurse practitioner.
- Nurse prescriber: Registered nurse designated to prescribe from a schedule of medicines.
- Pharmacist prescriber: Pharmacists who have completed an accredited postgraduate programme and have the prescriber scope of practice.

Consultation questions

26. Do you agree with the proposal for who can initiate clozapine treatment?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

27. Do you agree with the proposal for who can continue clozapine treatment?

- ☐ Yes
- ☐ No. Please suggest an alternative below.

28. Do you have any comments or feedback relating Medsafe's proposed prescribing restrictions for clozapine?

Point-of-Care testing

Current requirements

Point-of-Care (POC) tests for neutrophil counts are not currently an option.

Proposed changes

We would like to enable use of POC tests of appropriate quality and accuracy after the first 18 weeks of clozapine treatment. Point-of-Care test devices are not regulated in New Zealand. However, some brands have been accepted in other countries.

POC testing could be particularly useful in New Zealand where many people have barriers to accessing blood tests. For example, the pharmacist could do the POC test before dispensing the patient's next prescription.

We propose enabling the CPMS to allow a POC test result to be entered as an alternative to a laboratory blood test result.

However, the health system would need to make POC tests of appropriate quality and accuracy available and fund them.

Consultation questions

29. Do you agree that Point-of-Care tests of appropriate quality and accuracy should be an alternative to laboratory blood tests after 18 weeks of treatment with clozapine?

- ☐ Yes. Please state your reasoning below.
- ☐ No. Please state your reasoning below.

30. Do you have any other comments or feedback relating to Point-of-Care testing for clozapine?

Educational needs

We are interested to understand if further educational support would be helpful both now and following any changes.

Please let us know your educational needs for clozapine prescribing and safety monitoring. If you have any suggestions about who would be best placed to provide such education, please tell us below.

Consultation questions

31. What are your educational needs for clozapine prescribing and safety monitoring (both now and following any changes)?