

Livewell Southwest

Clozapine Policy for Mental Health Staff and Plymouth GP Practice Staff

Version No 5
Review: November 2023
Expires: November 2026

Notice to staff using a paper copy of this guidance

The policies and procedures page of LSW intranet holds the most recent version of this document and staff must ensure that they are using the most recent guidance.

Author: Specialist Mental Health Pharmacist

Clinical Lead for Acute Mental Health

Asset Number: 314

Reader Information

Title Olemania - Delian for Montal Health Otalf -	l Dlth. OD
Title Clozapine Policy for Mental Health Staff a Practice Staff v5	nd Plymouth GP
Asset number 314	
Rights of access Public	
Type of paper Policy	
Category Clinical	
Document To give Mental Health staff and Plymouth	GP Practice staff
purpose/summary information on the prescribing and monitor	
Includes an Agreement between Mental H	
GP Practices who are involved in the takir	
samples and/or issuing of Clozapine to pa	•
Author Specialist Mental Health Pharmacist	
Clinical Lead for Acute Mental Health	
Ratification date and Medicines Governance Group 28th Novem	ber '17
group Minor update ratified at MGG March 2021	
ratified July MGG 2021	, , , , , , , , , , , , , , , , , , , ,
MGG November 2023	
If the above 'Ratify by' date is exceeded	d, then the policy
is still valid until it is replaced.	, , , , , , , , , , , , , , , , , , , ,
Publication date 7 th December 2017	
25 th March 2021 v 3.4 minor update March	h 2021
19 th August 2021 v3.5	
November 2023 v5	
Review date and Review November 2023, Expires Novemb	er 2026.
frequency (one, two or Review Every 3 years	
three years based on	
risk assessment)	
Disposal date The Pharmacy Office will retain a copy for	the archive in
accordance with the Retention and Dispos	sal Schedule, all
copies must be destroyed when replaced	by a new version
or has been withdrawn from circulation.	•
Job title Specialist Mental Health Pharmacist	
Clinical Lead for Acute Mental Health	
Target audience Plymouth GPs and Practice Staff	
LSW Mental Health Staff	
UHP Pharmacy Staff for out of hours prov	ision
Circulation Electronic: Livewell Southwest (LSW) int	tranet and website
(if applicable)	
Written: Upon request to the Policy Co	
livewell.livewellpolicies@nhs	
Please contact the author if you require t	his document in an
alternative format.	
Consultation process A working party was involved in the produ	
Primary Care Clinical Governance Forum	, , ,
Local Medical Committee (15/5/08), (24/2/	,
A draft 2013 version was sent to all the fol	llowing for
consultation:	
	LSW

	Mental Health ward and unit managers, LSW Team leaders, CMHTs, LSW						
	4. Locality Managers and Deputies, LSW						
	5. Medicines Governance Group, LSW						
	6. Plymouth Area Joint Formulary						
	7. Risk Manager, LSW						
	Director / Deputy director of Pharmacy and Pharmacy Supply Manager at UHP Pharmacy						
	Medicines Optimisation Team, NEW Devon CCG						
	10. Primary Care Provider Performance, QOF & GP						
	Revalidation, NHS Devon, Plymouth & Torbay						
	11. Medical Director / Deputy Medical Director, NHS						
	England, Devon, Cornwall and isles of Scilly Area Team 12. Executive Chair, Devon LMC						
	13. Head of Medicines Management, Devon Partnership						
	Trust						
	Version 2.2 contained technical amendments only relating to						
	the change in dispensing location from UHP Pharmacy to						
	Glenbourne Pharmacy so no further consultation required. Version 2.3 contains amendments due to a formal						
	agreement between LSW and the LMC for Plymouth GP						
	Practices to take blood samples and issue medication for						
	patients on 4-weekly bloods only. Consultation:						
	Consultant Psychiatrists, LSW The state of the Control of						
	Team leaders, CMHTs, LSW Leadity Managers LSW						
	Locality Managers LSWMedicines Governance Group, LSW						
	Clozapine Technician, LSW						
	Version 3.1 and 3.2, consulted with Pharmacy Team and						
	Consultant Psychiatrists, LSW Version 3.4 consulted with LSW Pharmacy and Lead						
	Psychiatry Consultants. Approach discussed with CCG.						
	Version 5 consulted with LSW Pharmacy and Lead						
	Psychiatry Consultants. Approach discussed at MGG.						
Equality	Yes						
Equality analysis checklist	100						
completed							
References/sources of	1. SPC for Clozapine, Mylan (Last updated 12.05.20).						
information	Accessed via <u>www.medicines.org.uk</u>						
	Clozapine Patient Monitoring Service (CPMS) – www.clozaril.co.uk accessed 18/05/23 (and personal						
	contact)						
	3. "Why is he waiting? – a complete reference guide at your						
	fingertips" Novartis						
	4. Outpatient Initiation Guidelines for Clozapine – Novartis5. Taylor D, Paton C, Kapur S. The Maudsley Prescribing						
	Guidelines in Psychiatry 14 th edition. Wiley-Blackwell						
	British Medical Association, Royal Pharmaceutical						
	Society. The British National Formulary online (2023)						

	 The Pharmaceutical Press: Stockley's Drug Interactions 10th edition Gelder, M; Harrison, P; Cowen, P; Shorter Oxford Textbook of Psychiatry 6th edition 2012 Denzapine Monitoring Service www.denzapine.co.uk Accessed 18/05/2023 MHRA Drug Safety Update August 2020: Clozapine and other antipsychotics: monitoring blood concentrations for toxicity. Available at: https://www.gov.uk/drug-safety-update/clozapine-and-other-antipsychotics-monitoring-blood-concentrations-for-toxicity [Accessed 18.05.23].
Associated documentation	N/A
Supersedes document	Clozaril® Policy for Mental Health Staff and GP Practice Staff v4
Author contact details	By post: Local Care Centre, Mount Gould Hospital, 200 Mount Gould Road, Plymouth, Devon. PL4 7PY. Tel: 01752 434700 (LCC Reception) or e mail: livewell.livewellpolicies@nhs.net

Document review history

Properious review history please contact the PRG secretary.	Version	Type of	Date	Originator of	Description of
For previous review history please contact the PRG secretary.			Date		-
1.3 Reviewed 05/04/12 PRG Review date extended, no other changes made. 1.4 Reviewed 30/04/12 Author Review date extended, no other changes made. 1.5 Reviewed 30/11/12 Author Full review and alignment with the ICP Incorporated comments from consultation 2.0 Ratified new version 2.1 Updated 08/2015 Mental Health Pharmacist details. 2.2 Ratified 2/10/15 MGG All changes accepted Director of Pharmacy Advanced Nov Clinical Pharmacist LMC for Plymouth GP Practices to take blood samples and issue medication for patients on 4-weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published Pharmacist Dynamacist Advanced Clinical Pharmacist Dynamacist Dyn			nlease con		
1:4 Reviewed 30/04/12 Author Review date extended, no other changes made.		_	T*		
1:4 Reviewed 30/04/12 Author Review date extended, no other changes made.	1.5	INEVIEWED	03/04/12	I KO	
Changes made. Full review and alignment with the ICP	1.4	Reviewed	30/04/12	Author	
1.5 Reviewed 30/11/12 Author Full review and alignment with the ICP 1.6 Updated 28/2/13 Author Incorporated comments from consultation 2.0 Ratified new version 15/4/13 Author Comments from MGG and further consultation 2.1 Updated 08/2015 Mental Health Pharmacist 2.2 Ratified 2/10/15 MGG All changes accepted dispensing pharmacy and contact details. 2.2 Ratified 7/10/15 MGG All changes accepted Date extension Director of Pharmacy 3 Reviewed Ratified Nov 2017 MGG Advanced Clinical Pharmacist MGG Pharmacist MGG Pharmacist NGG Pha	1.4	INEVIEWED	30/04/12	Autioi	
1.6 Updated 28/2/13 Author Incorporated comments from consultation	1.5	Reviewed	30/11/12	Author	
1.6	1.5	Reviewed	30/11/12	Author	
Section Sect	1.6	Updated	28/2/13	Author	
version vers				7 10 11 10 1	·
Version Vers	2.0	Ratified new	15/4/13	Author	Comments from MGG and further
Health Pharmacist details.					
Health Pharmacist details.	2.1	Updated	08/2015	Mental	Updated to include change of
2.2 Ratified 2/10/15 MGG All changes accepted 2.3 Date Extension Pharmacy 3 Reviewed Ratified Nov 2017 Pharmacist MGG Advanced Clinical Pharmacist Extension Director of Pharmacy 3 Reviewed Ratified Nov 2017 Pharmacist MGG Advanced Clinical Pharmacist Extension Date extension 4 Advanced Clinical Advanced LMC for Plymouth GP Practices to take blood samples and issue medication for patients on 4-weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published Pharmacist Pharmacist Director of Pharmacist Pharmacist Pharmacist 3.2 Updated March 2020 Clinical Pharmacist Pharmacist Safety Pharmacist 3.3 Extended February 2021 Safety Pharmacist Pharmacist 3.4 Minor update February 2021 Inclusion of MHRA Alert August 2020. 3.5 Minor update August Specialist Mental Updates on CPMS blood limits following communication from				Health	dispensing pharmacy and contact
2.3 Date Extension Reviewed Ratified Nov 2017 Pharmacist MGG MGG Reviewed Ratified Nov 2017 Pharmacist MGG Reviewed Rose Pharmacist Pharmacist MGG MGG Reviewed Ratified Nov 2017 Pharmacist Pharmacist MGG Reviewed Since Pharmacist Since Pharmacist Pharmacist Pharmacist Since Pharmacist Pharmacist Pharmacist Since Pharmacist Pharmaci				Pharmacist	
Extension Director of Pharmacy	2.2	Ratified	2/10/15	MGG	All changes accepted
Extension Director of Pharmacy					,
Reviewed Ratified Nov 2017 Pharmacist MGG Reviewed Ratified Nov 2017 Pharmacist Reviewen Ratified Nov 2017 Pharmacist Reviewen Ratified Ratified Ratified Nov 2017 Pharmacist Reviewen Ratified Radvanced LMC for Plymouth GP Practices to take blood sample same level medication for patients on 4- weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 9 (ordering of blood sample equipment) Revision of plasma level monitoring advice. Addition of caution regarding overdose risk. Ruther update following consultation of v 3.1 Pharmacist Revision of v 3.1 Pharmacist Revision of plasma level monitoring advice. Addition of caution regarding overdose risk. Further update following consultation of v 3.1 Extended no changes Ratified	2.3	Date	6/11/17	Clinical	Date extension
Reviewed Ratified Nov 2017 Advanced Clinical Pharmacist Pharmacist Advanced take blood samples and issue medication for patients on 4-weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment)		Extension		Director of	
Nov 2017 MGG Replace to take blood samples and issue medication for patients on 4-weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist 3.3 Extended February 2021 Governance & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Pharmacist 3.5 Minor update August 2021 Clinical Pharmacist August 2021 Specialist Mental August Specialist Mental August Specialist Mental August Specialist Following communication from				•	
2017 MGG Pharmacist LMC for Plymouth GP Practices to take blood samples and issue medication for patients on 4-weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist Pharmacist 3.3 Extended February 2021 3.4 Minor update February 2021 Minor update February 2021 Safety Pharmacist Advanced Clinical Pharmacist Clinical Pharmacist Further update following consultation of v 3.1 Extended no changes Extended no changes Extended no changes Inclusion of MHRA Alert August 2020. Inclusion of MHRA Alert August 2020. Updates on CPMS blood limits following communication from	3	Reviewed			
MGG MGG			_		1 9
medication for patients on 4- weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist Advanced Clinical Pharmacist 3.3 Extended February 2021 Specialist Minor update Minor update August 2021 Minor update Minor update Minor update Minor update Minor update August 2021 Minor update Minor update Minor update Minor update August 2021 Minor update Minor updat				Pharmacist	T
weekly bloods only. Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 March 2020 Clinical Pharmacist Advanced Clinical Pharmacist Governance Advanced Clinical Pharmacist Governance Apharmacist Governance Apharmacist Safety Pharmacist 3.4 Minor update February 2021 Minor update February 2021 Clinical Pharmacist Advanced Clinical Pharmacist Governance Apharmacist Advanced Clinical Pharmacist Clinical Pharmacist Advanced Clinical Pharmacist Updates on CPMS blood limits following communication from			MGG		•
Minor changes to clozapine prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist Advanced Clinical Pharmacist Clinical Pharmacist Clinical Pharmacist Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Safety Pharmacist 3.4 Minor update Minor update February 2021 Advanced Clinical Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Jupdates on CPMS blood limits following communication from					
prescription. Simplification of flow diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated 3.3 Extended 4 March 2020 5 Clinical Pharmacist 6 Clinical Pharmacist 7 Clinical Pharmacist 6 Clinical Pharmacist 7 Clinical Pharmacist 8 Patient Safety Pharmacist 7 Clinical Pharmacist 8 Patient Safety Pharmacist 9 Clinical Pharmacist 1 Covernance Advanced Clinical Pharmacist 8 Covernance Apatient Safety Pharmacist 9 Clinical Pharmacist 1 Covernance Advanced Clinical Pharmacist 3 Covernance Sextended no changes 1 Covernance Advanced Clinical Pharmacist 3 Covernance Sextended no Changes 3 Covernance Sextended no Changes 4 Clinical Pharmacist 5 Covernance Sextended no Changes 6 Clinical Pharmacist 7 Covernance Sextended no Changes 8 Covernance Sextended no Changes 9 Covernance Sextended no Changes 1 Covernance Sextended no Changes 2 Covernance Sextended no Changes 2 Covernance Sextended no Changes 3 Covernance Sextended no Changes 4 Covernance Sextended no Changes 1 Covernance Sextended no Changes 2 Covernance Sextended no Changes 2 Covernance Sextended no Changes 2 Covernance Sextended no Changes 3 Covernance Sextended no Changes 4 Covernance Sextended no Changes 5 Covernance Sextended no Changes 6 Covernance Sextended no Changes 9 Covernance Sextended no Changes 1 Covernance Sextended no Changes 1 Covernance Sextended no Changes 1 Covernance Sextended no Changes 2 Covernance Sextended no Changes 2 Covernance Sextended no Changes 3 Covernance Sextended no Changes 4 Covernance Sextended no Changes 2 Covernance Sextended no Changes 2 Covernance Sextended no Changes 3 Covernance Sextended no Changes 4 Covernance Sextended no Changes 4 Covernance Sext					
diagrams (appendix 7 & 8) and addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist Clinical Pharmacist Clinical Pharmacist Clinical Pharmacist Safety Pharmacist 3.4 Minor update Minor update Minor update Advanced Clinical Pharmacist Clinical Phar					
addition of appendix 9 (ordering of blood sample equipment) 3.1 Minor amendment – not published 3.2 Updated March 2020 Clinical Pharmacist March 2020 Clinical Pharmacist Clinical Pharmacist Clinical Pharmacist Safety Pharmacist 3.4 Minor update Minor update Tebruary 2021 February 2021 Advanced Clinical Pharmacist Safety Pharmacist Clinical Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Minor update Tebruary 2021 Advanced Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Updates on CPMS blood limits following communication from					
Signature Sign					, , , ,
3.1 Minor amendment – not published 2020 Clinical Pharmacist Addition of caution regarding overdose risk. 3.2 Updated March 2020 Clinical pharmacist Pharmacist 3.3 Extended February 2021 Governance & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Safety Pharmacist 3.5 Minor update August 2021 Minor update August 2021 Mental Clinical Pharmacist Specialist Mental Updates on CPMS blood limits following communication from					
amendment – not published 3.2 Updated March 2020 Clinical Pharmacist March 2020 Clinical Pharmacist Addition of caution regarding overdose risk. Further update following consultation of v 3.1 February 2021 Settended Minor update February 2021 Advanced Clinical Pharmacist Safety Pharmacist Advanced Clinical Pharmacist Safety Pharmacist Clinical Pharmacist Inclusion of MHRA Alert August 2020. Minor update August Specialist Updates on CPMS blood limits following communication from	0.4	NA:	F - 1	A -l	
not published Pharmacist Addition of caution regarding overdose risk.	3.1	_			
3.2 Updated March 2020 Clinical consultation of v 3.1 3.3 Extended February 2021 & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Pharmacist 3.5 Minor update August 2021 Specialist Department of the process of			2020		
3.2 Updated March 2020 Clinical Pharmacist 3.3 Extended February 2021 & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Pharmacist 3.5 Minor update August 2021 Specialist Mental Updates on CPMS blood limits following communication from		not published		Filamilacist	
2020 Clinical consultation of v 3.1 3.3 Extended February 2021 Governance & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Pharmacist 3.5 Minor update August 2021 Specialist Mental Clinical following communication from	3 2	Undated	March	Advanced	
3.3 Extended February 2021 Governance & Patient Safety Pharmacist 3.4 Minor update February 2021 Advanced Clinical Pharmacist 3.5 Minor update August 2021 Specialist Updates on CPMS blood limits following communication from	3.∠	Opualeu			
3.3 Extended February 2021 Governance & Patient Safety Pharmacist 3.4 Minor update February 2021 Clinical Pharmacist 3.5 Minor update August 2021 Specialist Mental Updates on CPMS blood limits following communication from			2020		Consultation of V 3.1
3.4 Minor update February 2021 Advanced Clinical Pharmacist 3.5 Minor update August 2021 Specialist Mental Updates on CPMS blood limits following communication from	3 3	Extended	February	·	Extended no changes
3.4 Minor update February 2021 Advanced Clinical 2020. 3.5 Minor update August 2021 Specialist Updates on CPMS blood limits following communication from	0.0	LAIGINGU			Litteriaed no changes
3.4 Minor update February 2021 Clinical 2020. 3.5 Minor update August 2021 Specialist Updates on CPMS blood limits following communication from			2021		
3.4 Minor update February 2021 Advanced Clinical 2020. 3.5 Minor update August 2021 Specialist Following communication from				,	
2021 Clinical 2020. Pharmacist 3.5 Minor update August Specialist Updates on CPMS blood limits following communication from	3.4	Minor update	February		Inclusion of MHRA Alert August
3.5 Minor update August Specialist Updates on CPMS blood limits following communication from		3.1 3.1 3.3.13			
3.5 Minor update August Specialist Updates on CPMS blood limits following communication from					
2021 Mental following communication from	3.5	Minor update	August	·	Updates on CPMS blood limits
			_	•	•
					CPMS

			Health Pharmacist	
4	Reviewed	May 2022	Consultant Psychiatrist (HTT) & Specialist Mental Health Pharmacist	-Amendment of process following a red result (info updated from CPMS) – section 6 -Amendment of process following a treatment break (info updated from CPMS) -Removal of reference to clozapine use in Parkinsons section 10 -Removal of GP involvement in clozapine plasma levels – section 6 -Added about non effects of vaping on clozapine levels – section 6 -Clarified clozapine initiation processes for ward based and community patients – section 6 -Addition of ICP forms in Appendix – section 7
5	Reviewed and split	Nov 2023	Specialist Mental Health Pharmacist & Clinical Lead for Acute Mental Health	Clozapine policy split into policy and clinical guideline (separate documents)

Contents

Section	Content	Page No
1	Introduction	9
2	Overall Aim of Policy	9
3	Objectives	9
4	Measure of Effectiveness	9
5	Workforce Planning Issues	9
6	Clozapine general information	10
	6.1 Blood monitoring	
	6.2 Clozapine toxicity and Plasma Levels	
7	Before Starting a Patient on Clozapine	11
8	Responsibility for blood monitoring and handling medication supplies	13
9	Information for Patients	13
10	Prescribing clozapine	14
11	Monitoring of Physical Health	15
12	Treatment breaks or Stopping	16
13	Taking Full Blood Count Samples	18
14	Notification from CPMS / DMS of late/missed blood test or amber/red alert	19
15	Dispensing Clozapine	20
16	Control of Clozapine Supplies	21
17	Change of Patient Details	22

RAPA Alert (Recurring Admission Patient Alert)	22
Glossary	22
Standard Regimen for Inpatient Clozapine Titration	24
Clozapine Maintenance Prescription Form	25
Letter of Request for GP Practice	26
Information for GP Practice Staff	27
Clozapine Agreement between Mental Health Services and GP Practice Staff	28
Flow Chart – GP Blood Tests for Clozapine Patients (full blood counts only)	30
Flow Chart – GP Clozapine Supplies for Patients	31
CPMS: How to order equipment for blood taking	33
ICPCL (initiation) form	35
ICPCLRT (retitrating) form	41
	Standard Regimen for Inpatient Clozapine Titration Clozapine Maintenance Prescription Form Letter of Request for GP Practice Information for GP Practice Staff Clozapine Agreement between Mental Health Services and GP Practice Staff Flow Chart – GP Blood Tests for Clozapine Patients (full blood counts only) Flow Chart – GP Clozapine Supplies for Patients CPMS: How to order equipment for blood taking ICPCL (initiation) form

Clozapine Policy for Mental Health Staff and Plymouth GP Practice Staff

1. Introduction

- 1.1 In Plymouth patients will be registered with the Clozaril® Patient Monitoring Service (CPMS) if taking clozapine tablets or with the Denzapine® Monitoring Service (DMS) if taking clozapine suspension.
- 1.2 Clozapine can only be prescribed by doctors and dispensed by pharmacies that are registered with CPMS and / or DMS. Within the South and West Devon Formulary clozapine is listed as a "hospital only drug" and is therefore prescribed by psychiatrists and dispensed by LSW and UHP pharmacies.

2. Overall aim of the policy

- 2.1 This policy aims to give the necessary information to allow Mental Health Staff to initiate and to continue to prescribe Clozapine safely, and to plan and monitor the patient's ongoing care, which may involve their GP Practice.
- 2.2 It outlines the responsibilities of both Mental Health Staff and GP Practice staff for those patients that are to have blood samples taken and/or to collect their Clozapine supplies from their GP Practice and contains a formal agreement to be signed for each patient. It also aims to give the necessary information to GP Practice staff so that they are aware of the issues around Clozapine and are willing to take on this role.

3. Objectives that build toward the overall aim of the policy

3.1 To reduce risk to patients. To give adequate information and support to GP Practice staff.

4. Description of how you will measure its effectiveness

- 4.1 Monitoring of problems and errors via Clozapine Pharmacy Technician.
- 4.2 Feedback from GP Practice staff and Mental Health staff.

5. Workforce Planning Issues

5.1 GP practices will only take blood samples and handle medication for patients on 4-weekly blood monitoring. Therefore, mental health staff will remain responsible for blood samples and medication supplies for newly initiated patients until they have been on clozapine for at least twelve months. Mental health staff will also be responsible for patients who revert to weekly or 2-weekly blood samples as required by CPMS/DMS. This is a change from previous practice where mental health staff were responsible for blood samples and medication supplies for the first 18 weeks of treatment only.

- 5.2 GP Practice staff already deal with Clozapine on an informal basis and this policy has hopefully had a positive impact on the service they are already providing.
- 6. Clozapine General Information
- 6.1 Blood Monitoring Requirements (full blood count)
 - 6.1.1 Clozapine patients must have their **WBC** (white blood cell count) and **ANC** (absolute neutrophil count) regularly monitored for the whole time they are taking Clozapine.

The frequency of monitoring is:

- One blood test within the 10 days prior to starting Clozapine
- At least weekly for the first 18 weeks
- At least every 2 weeks between weeks 18 and 52
- At least every 4 weeks thereafter
- Monitoring must continue during treatment and for at least 4 weeks after stopping
- Frequency of monitoring may change following a treatment break or during treatment dependent on blood results – this will be advised by CPMS or DMS
- 6.1.2 The cost of monitoring the blood counts is factored into the price of Clozaril® tablets (or Denzapine® suspension). Therefore, please ensure that CPMS (or DMS as appropriate) are used for this purpose. The UHP combined labs should only be used in an emergency e.g. if insufficient time available until patient status goes RED (see section 14.2).
- 6.1.3 The patient can only receive medication if the blood results have been registered on the CPMS/DMS computer system and CPMS/DMS have approved the dispensing of further clozapine. Medication can only be dispensed for a specified number of days since the last blood test.
- 6.2 Clozapine Toxicity and Plasma Level Monitoring (MHRA Alert)
- 6.2.1 Clozapine dosages should be based on clinical presentation. Clozapine plasma levels may be beneficial in aiding the decision-making process around prescribing.
- 6.2.2 Plasma levels, if needed, can be requested via UHP Combined Laboratories or directly with KingsPath Laboratory. By requesting directly from UHP Combined Labs, the results will be available to view via System One.
 - N.B. Plasma levels are not processed locally; results can take days to return.

 If there are concerns about significant adverse effects from clozapine including toxicity, reducing or withholding clozapine should not wait for the results of serum levels.

 Action should be guided by the patient's clinical presentation.
- 6.2.3 Plasma level monitoring is not a substitute for assessing other adverse effects. For acutely

unwell patients, additional investigations should be completed as per patient presentation (e.g., if infection check FBC to rule out neutropenia, cardiovascular symptoms take BP, pulse, ECG etc.)

6.2.4 Information on drug interactions can be found in clinical guidelines for Clozapine and the online BNF.

7. Before Starting a Patient on Clozapine

- 7.1 There must a discussion between the patient/carers and healthcare professionals before starting clozapine, including the need for regular blood tests and potential adverse events.

 Obtain informed consent if capacitious or hold a best interest meeting if patient lacks capacity. For detained patients, ensure the relevant mental health act forms are in place.
 - Whilst not an absolute contraindication, prescribers should consider the risk of overdose. Significant fatalities have occurred even following non-intentional overdoses.
- 7.2 A full physical health check must be undertaken, including bloods and ECG. Discuss any physical health conditions/ concerns with CPMS pharmacists before proceeding. If a patient has been on clozapine before, contact the relevant monitoring service to ascertain if any contraindications to recommencing clozapine.
- 7.3 Inform the patient's GP. It is good practice for the GP Practice to include clozapine on the patient medication record for information and appropriate alerts.
- 7.4 Decide where and by whom ongoing blood tests will be taken. Note: Plymouth GP practices will only take blood samples for patients on 4-weekly blood monitoring.
- 7.5 Decide how the patient will receive continuing supplies of clozapine.
- 7.6 Decide which mental health team will monitor the patient during the first 12 months of treatment (see below). The patient should have a Care Co-ordinator (or someone responsible for co-ordinating their care) to ensure ongoing monitoring and support for the patient and any other agency involved.
- 7.7 Inform the Clozapine Pharmacy Technician (LSW pharmacy based at Glenbourne tel. 01752 439006 or internal 39006) of new patient details, including patient name, NHS number, prescriber, care co-ordinator, who will be taking bloods and delivery details.
- 7.8 For ward-based patients:

 Liaise with ward pharmacist and Glenbourne pharmacy clozapine technician and arrange a date for the initial dose to be given. If a patient is on any other antipsychotics, these may need to be reduced prior to commencing clozapine. Once a date has been agreed, a full blood count must be done in the week preceding the start date and the patient must be registered with

CPMS/DMS.

7.9 For community-based patients:

An MDT discussion will need to be undertaken to determine where the initial dose will be administered and how the hourly observations for the next 6 hours will be facilitated and who will be undertaking the next 2 weeks of monitoring. This may require a discussion with the HTT team or the relevant ward.

Liaise with pharmacist and Glenbourne pharmacy clozapine technician and arrange a date for the initial dose to be given. If a patient is on any other antipsychotics, these may need to be reduced prior to commencing clozapine. Once a date has been agreed, a full blood count must be done in the week preceding the start date and the patient must be registered with CPMS/DMS.

7.10 Registration:

If the GP Practice or another Mental Health Team will be involved in ongoing management and monitoring, then the decision to commence clozapine must be made with their full agreement and co-operation. A clozapine Agreement Form (see Appendix 5) must be completed for the involvement of a GP Practice.

There are two Integrated Care Pathways available on SystmOne:

ICPCL for the Initiation of Clozapine **ICPCLRT** for the Re-Titration of Clozapine®

These can be located by creating a letter through the communications and letters function on SystmOne – both ICPs are available as letter templates (see Appendix 9 & 10).

If the Home Treatment Team (HTT) are to be involved in this process they must be contacted at the out-set (01752 314033 or internal 41033). There is a separate HTT Referral Process

8. Responsibility for blood monitoring and handling medication supplies

8.1 The first 12 months of treatment

- 8.1.1 The first 18 weeks of Clozapine treatment are the greatest risk for neutropenia and agranulocytosis (70% of cases), hence the weekly blood monitoring requirements. It is also the time when many of the other side-effects emerge and when non-adherence to treatment is likely to be greatest.
- 8.1.2 The following 34 weeks (i.e., until the patient has been on clozapine for 12 months) are also considered to be high risk for neutropenia and agranulocytosis and during this time 2-weekly blood monitoring is required.
- 8.1.3 For these reasons, Mental Health Services should monitor patients closely during the first 12 months of treatment and will remain responsible for taking blood samples and handling supplies of medication.

8.2 After the first 12 months of treatment

- 8.2.1 Patients will normally go on to 4-weekly blood monitoring. At this point the GP Practice can take over the blood sampling and take delivery of medication to issue to the patient.
- 8.2.2 If, at any point, the patient is required to revert to weekly or 2-weekly blood monitoring by CPMS/DMS (usually due to a reduction in WBC/ANC) responsibility for blood sampling and medication supplies will revert to Mental Health Services until the patient is back to 4-weekly blood monitoring. The clozapine technician will alert the prescriber who will take responsibility to ensure that the patient has blood tests taken and that the care of the patient reverts to the mental health team rather than the GP practice.

9. Information for Patients

- 9.1 All patients should be provided with a clozapine patient information leaflet which should be explained to them by a nurse, doctor, or pharmacist. These leaflets are available via http://patient.info/medicine/clozapine-clozaril-denzapine-zaponex
- 9.2 There is a DVD titled "A Journey into Light". These can be obtained from CPMS (tel. 0845 769 8269) or there may be copies available from the Clinical Pharmacy Team (tel. 01752 439006).
- 9.3 All patients should be offered the opportunity to meet with a specialist mental health pharmacist which can be arranged via the ward / unit or by calling the Clinical Pharmacy Team.

Remember that the patient may not be able to understand and retain information at the point of starting clozapine it may be necessary to re-discuss the information once the patient is stable on clozapine.

10. Prescribing Clozapine

10.1 Writing Prescriptions

- 10.1.1 Clozapine can only be prescribed by doctors and dispensed by pharmacists who are registered with **CPMS** (or **DMS** for suspension). Within the South and West Devon Formulary it is listed as a "hospital only drug" and can therefore only be prescribed by psychiatrists and within the Plymouth area only be dispensed by LSW pharmacy (areas outside of Plymouth, e.g., South Hams and West Devon, will be supplied by UHP Pharmacy).
- 10.1.2 When Clozapine treatment is first initiated the dose must be started low and gradually increased over 2 to 4 weeks to reduce the risk of side-effects. During this titration phase the prescription should be written using the **Standard Regimen for Inpatient Clozapine Titration which** is provided in Appendix 1 and should be completed in the titration section of the mental health in-patient prescription chart. The whole of the prescription chart must be emailed to LSW Pharmacy (<u>livewell.clozapineservice@nhs.net</u>) (01752 439006 or 39006 internal) for the attention of the clozapine technician **at least 24 hours before the first dose is due.**
- 10.1.3 Once a maintenance dose of clozapine is reached, the prescription should be written on either a mental health in-patient drug chart (for wards / units where these are used) or a **Clozapine Maintenance Prescription Form** (See Appendix 2). Prescription forms must be emailed to LSW Pharmacy (<u>livewell.clozapineservice@nhs.net</u>) by the end of the Tuesday of the dispensing week at the latest.
- 10.1.4 A Clozapine Maintenance Prescription is valid for a maximum of six dispensings (initial dispensing followed by five repeats). A new prescription must be written and emailed to LSW Pharmacy once this limit is reached.
- 10.1.5 If there is a change in the patient's consultant/ team, an email needs to be sent to the LSW Pharmacy (<u>livewell.clozapineservice@nhs.net</u>) with all relevant information and updates. The clozapine technician will update local systems and CPMS database. The new Maintenance prescription should reflect the new details and forwarded to clozapine services.
- 10.1.5 If any alerts arrive, Glenbourne clozapine service should email the named consultant, team manager and the relevant medical secretaries.

10.2 Dose / initiating clozapine - Treatment resistant schizophrenia

- **10.2.1 In-patients (see appendix 1):** Start with 12.5mg given once on the first day, then increase slowly in increments of 25 to 50 mg to a dose of up to 300 mg/day within 2 to 3 weeks. Thereafter, if required, the daily dose may be increased in increments of 50 to 100 mg at half-weekly or, preferably, weekly intervals. In most patients, antipsychotic efficacy can be expected with 200 to 450 mg/day given in divided doses.
- 10.2.2 **Outpatient Initiation:** a slower titration dose to that normally used for in-patient initiation should be used. The dosing schedule should be tailored to the individual circumstances, to include first dose with 6 x hourly monitoring, then the patient to be seen twice daily.

Dosage increases should not be made at weekends unless there is the same service support as on weekdays. A once daily dose may be used for the first week, changing to twice daily in the second week if this is preferable. The patient must be seen twice a day during the titration phase. Patients do not need to be seen at weekends if there are no changes to the dose.

10.2.3 The following are suggested target doses following the initial titration:

Female non-smokers: 250mg /day Female smokers: 450mg / day Male non-smokers: 350mg / day Male smokers: 550mg / day

- 10.2.4 There is substantial individual variation, and the dose should be guided based on response and side-effects.
- 10.2.5 To obtain full therapeutic benefit, a few patients may require larger doses (the maximum dose 900 mg/day).
- 10.2.6 The total daily dose should be given as two divided doses, with a larger proportion in the evening if sedation is a problem.
- 10.2.7 Daily doses of up to 200mg may be given once a day in the evening.

10.3 Use in the elderly:

Start with 12.5 mg given once on the first day, with subsequent dose increments restricted to 25 mg/day.

11. Monitoring of Physical Health

- 11.1 During initiation the following physical observations should be made:
 - Blood pressure lying down
 - Blood pressure standing up
 - Pulse
 - Temperature

11.2 Frequency

- 1st day of clozapine treatment: Before administering the first dose and then hourly for 6 hours following the first dose check:
- Days 2-14 of clozapine titration check twice a day:
- Day 14 onwards check on alternate days until stable dose reached
- Subsequently at time of blood monitoring

- 11.3 A doctor should be informed and advice sought if the following are observed:
 - Postural drop of >30mm/Hg
 - Pulse >100bpm
 - Temperature >38°C
 - Over-sedation
 - Other intolerable adverse effects

11.4 The following monitoring is also recommended (after baseline measurements):

- Weight, BMI and waist circumference, lipids and glucose: baseline, then 3 monthly for 1st year, then yearly thereafter.
- Hyperglycaemia should be managed but where the active medical management of this fails discontinuation of clozapine should be considered.
- Liver function tests: baseline, 4-6months, 12 months. If LFTs rise to >3 time the upper limit of normal, then clozapine should be stopped, and clozapine only restarted once LFTs are normal. In such cases LFTs should be closely monitored.

12. Treatment Breaks or Stopping Clozapine

- 12.1 If, at any point during their treatment, there is a treatment break for longer than 48 hours, the Clozapine must be re-introduced at a lower dose and gradually increased back to the treatment dose. **The patient must not re-start their Clozapine at the previous dose.**
- **12.2** Mental Health Services must inform:
 - the Clozapine Technician (by telephone)
 - CPMS (or DMS for suspension)
 - GP Practice (if involved).

12.3 Table of dosing and monitoring following treatment breaks²

Note: The table below is taken from CPMS' website. For patients using DMS the advice differs slightly.

* Start at 12.5mg once or twice on the first day. May be possible to re-titrate at faster rate than initial titration.

Assessment Guidelines for Missed Doses

The following tables summaries information from the Summary of Product Characteristics for Clozaril® (clozapine) and CPMS processes on re-starting therapy after various periods of discontinuation of therapy:

Patients on Weekly Monitoring

Off treatment for less than two days

- · No change to monitoring frequency
- · Continue at usual prescribed dose

Off treatment for more than two days but less than 7 days

- . No change to monitoring frequncy
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- · Contact CPMS for advice if necessary

Off treatment for 7 days or more but less than 28 days

- · Restart 18 weeks of weekly monitoring
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- . CPMS MUST be contacted

Off treatment for more than 28

- · Restart 18 weeks of weekly monitoring
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- · New patient registration form required
- CPMS MUST be contacted

Patient on Fortnightly or 4 Weekly Monitoring

Off treatment for less than two days

- · No change to monitoring frequency
- · Continue at usual prescribed dose

Off treatment for more than two days but less than 3 days

- · No change to monitoring frequncy
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- · Contact CPMS for advice if necessary

Off treatment for more than 3 days but less than 28 days

- · 'Treatment Break' scenario
- Patient must complete 6 weeks of weekly blood tests, then revert back to previous monitoring frequency
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- CPMS MUST be contacted

Off treatment for more than 28 days

- · Restart 18 weeks of weekly monitoring
- Re-titrate patient starting from 12.5mg
 ONCE or TWICE on the first day
- · New patient registration form required
- . CPMS MUST be contacted

The full Summary of Product Characteristic (SmPC) guidelines for Clozaril® (Clozapine) can be view at www.medicines.org.uk/emc/ (UK) or www.medicines.ie (Ireland).

As per section 4.2 of the SmPC for Clozaril*: In patients in whom the interval since the last dose of Clozaril exceeds 2 days, treatment should be re-initiated with 12.5 mg given once or twice on the first day. If this dose is well tolerated, it may be feasible to titrate the dose to the therapeutic level more quickly than is recommended for initial treatment. However, in any patient who has previously experienced respiratory or cardiac arrest with initial dosing but was then able to be successfully titrated to a therapeutic dose, retitration should be carried out with extreme caution.

12.4 Re-titration

Clozapine re-titration requires regular monitoring and for community patients, HTT or SORT must be contacted before re-initiation.

12.5 Stopping Clozapine

Except where the urgent cessation of clozapine is required (see above), it is recommended that clozapine is gradually withdrawn (slow taper down over 3 weeks) to reduce the risk of withdrawal reactions (e.g., recurrence of psychotic symptoms and cholinergic rebound)⁵. CPMS and Glenbourne Clozapine service will need to be informed of any cessation or planned cessation of clozapine as soon as feasibly possible.

In all cases where clozapine is stopped, further blood samples will need to be taken as advised by CPMS.

13. Taking Full Blood Count Samples

- 13.1 Blood sampling equipment is provided by CPMS/DMS (including pre-paid PURPLE envelopes for posting blood samples directly to CPMS / DMS). The cost for this service is included in the contract price for Clozaril® / Denzapine® and should be used under normal circumstances. Equipment can be ordered on the CPMS website (see appendix 9) or by contacting CPMS/DMS directly (for CPMS call 0845 769 82 69 option 4).
- 13.2 In an emergency (i.e., if the blood sample will not reach CPMS / DMS in time by first class post) or under other circumstances (after discussion with the Clozapine Pharmacy Technician) blood samples can be sent to UHP Combined Labs but this will incur the usual charge and will increase pharmacy time in chasing-up the results. The Clozapine Pharmacy Technician must be informed if the blood sample has been sent to UHP Combined Labs. The clozapine technician will need to check the UHP combined labs results system and enter the full blood count results into the CPMS / DMS system.
- 13.3 If the GP Practice has agreed to take blood samples, their details will be registered with CPMS/DMS by the care co-ordinator They will then receive an Information Pack and blood sampling equipment (including pre-paid envelopes for posting blood samples to CPMS /DMS). The GP Practice will be able to order further blood sampling supplies via the CPMS/DMS website. See Appendix 7
- 13.4 The GP Practice will also be alerted if a RED blood result is received (in addition to the Psychiatrist and Clozapine Pharmacy Technician). It is the responsibility of the Psychiatrist to take the appropriate action necessary following a red blood result.
- 13.5 CPMS / DMS will advise both the prescriber and the Clozapine Pharmacy Technician when monitoring frequency changes. The prescriber should inform the Care Co-ordinator (or designated person), and the GP Practice if involved.

13.6 Blood samples should be taken according to the following schedule: NB: GP Practice staff should not be expected to take blood samples at weekends

Frequency of blood monitoring	Weekly	2 weekly	2 weekly		4 weekly			
Week of cycle:	Weeks 1-4	Week 1	Week 2	Week 1	Week 2	Week 3	Week 4	
Sunday								
Monday								
Tuesday	Blood sample taken		Blood sample taken			Blood sample taken		
Wednesdays and Thursdays	Deliver one week's supply of medication		Deliver two weeks' supply of medication				Deliver four weeks' supply of medication	
Friday / Saturday	Start new supply of medication		Start new supply of medication				Start new supply of medication	

14. Notification from CPMS / DMS of late/missed blood test or amber/red alert

- 14.1 If a blood test is not registered on the CPMS / DMS system by the due date, CPMS / DMS will email an "Overdue Notification" to the consultant registered with CPMS for that patient, LSW Pharmacy and the patient's GP (if they are registered as the blood sampling site with CPMS / DMS). The email will inform them of the last date on which the patient can take Clozapine unless a blood test result is sent to CPMS.
- 14.2 If a blood test is still not registered on the CPMS / DMS system then a "Clozapine Prohibited" notice will be emailed on the last day that the patient is allowed to take Clozapine.
- 14.3 If the blood sample is sent to UHP Combined Labs instead of CPMS / DMS, the Clozapine Pharmacy Technician must look for the test result and manually enter the result on the CPMS/DMS system. The consultant should therefore check with the Clozapine Pharmacy Technician before acting on an alert.
- 14.4 If an amber or red test result is registered on the CPMS / DMS system, an alert will be emailed to the consultant registered with CPMS /DMS for that patient, LSW Pharmacy (livewell.clozapineservice@nhs.net) and the patient's GP (if they are registered as the blood sampling site with CPMS /DMS). The email will inform the consultant of the action to be taken and the consultant must act immediately on this information.
- 14.5 It is very important that CPMS/DMS have the correct information registered for each patient so that the emails are sent to the correct person.

14.6 Red alert procedure:

For all red results, contact CPMS/DMS for advice regarding ongoing management.

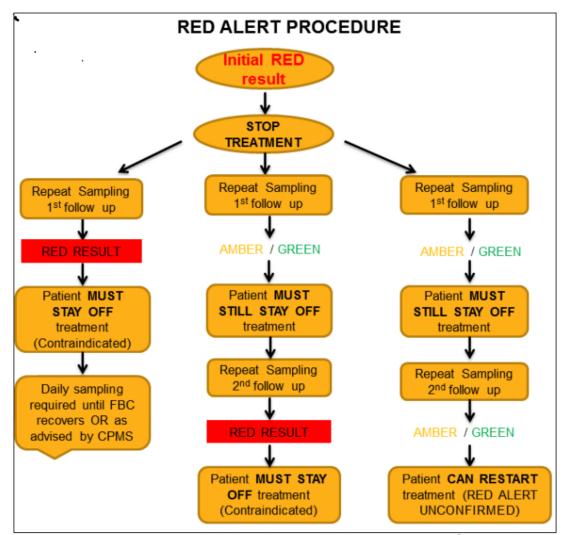


Figure 1: A flow diagram summarising the red results procedure 6

15. Dispensing Clozapine

- 15.1 All Clozapine supplies for patients in Plymouth (under LSW mental health services) are dispensed by LSW pharmacy based at the Glenbourne unit. Patients falling under other mental health services in the area (e.g., South Hams and West Devon) will be supplied via UHP pharmacy.
- 15.2 The LSW pharmacy clozapine service is available Monday Friday 9am-5pm, outside of these hours emergency supplies will be provided by UHP pharmacy who can be contacted via UHP switchboard.
- 15.3 Supplies are issued on Wednesdays and Thursday (unless as agreed by prior arrangement with the Clozapine Pharmacy Technician) and are for a duration of one, two or four weeks corresponding to the blood monitoring frequency for the patient.

- 15.4 The patient can only receive medication if they have a current Green or Amber blood result registered on the CPMS or DMS computer system. This blood result must be available to the Clozapine Pharmacy Technician by the Wednesday before the medication is due at the very latest. It is therefore extremely important that the blood test is taken in plenty of time taking account of the maximum validity (See Section 15.3). If there is going to be a problem obtaining a blood result in time, the patient's Care Co-ordinator (or designated person) or Psychiatrist must be contacted for advice.
- 15.5 In general clozapine will be supplied as 25mg and 100mg tablets. If a liquid is required this will be obtained as Denzapine® suspension 50mg / ml, this product is supplied with 1ml and 10ml oral syringes (1ml syringe for doses of 50mg or less, 10ml syringe for higher doses). The patient and prescriber will need to be registered with DMS.
- 15.6 Clozapine tablets will normally be dispensed in cartons. If a compliance aid is required, then pharmacy should be contacted to discuss the most suitable options. Most patients will be supplied with a sealed Venalink® blister pack.
- 15.7 For patients using Medidose boxes, empty devices can be sent back to LSW Pharmacy for refilling via the internal post (N.B. they must be empty of all medication). If the Medidose is not returned or not returned in a reusable condition, the unit/team will be charged for a new Medidose.

16. Control of Clozapine Supplies

- 16.1 Appropriate guidelines and monitoring need to be followed when prescribing, dispensing, administering or consuming clozapine in order to minimise any associated risks. There is a particular risk:
 - In clozapine-naive persons
 - When taken in a standard dose following a treatment break of longer than 48 hours
 - When taken by a person with low WBC or ANC
 - If taken in overdose
- 16.2 Clozapine supplies must only be used for the person for whom they have been dispensed. In addition, they must only be used by that person during the treatment period for which they have been dispensed (unless otherwise directed by the Clozapine Pharmacy Technician).
- 16.3 If there is any medication left unused at the end of a treatment period, or any excess medication found (e.g., at a patient's home, on an inpatient unit, at a GP Practice etc.) it must be returned to the Clozapine Pharmacy Technician for disposal. This is to reduce the risk of misuse or overdose.
- 16.4 If a patient is short of medication the Clozapine Pharmacy Technician must be contacted for advice.

17. Change of Patient Details

- 17.1 It is very important that both CPMS/DMS and the Clozapine Pharmacy Technician are informed if a patient changes any of their personal details or changes Consultant, GP, Care Co-ordinator (or designated person) or Mental Health Team. This includes discharge from, or transfer between, a ward or inpatient unit. When appropriate a new clozapine maintenance prescription must be written (see section 10).
- 17.2 If the patient has been having blood tests or collecting medication from their GP Practice the Care Co-ordinator (or designated person) must be informed if the patient transfers to a new Practice. This is the responsibility of both the current Practice and the new Practice as it is not always a planned process. The Care Co-ordinator (or designated person) should inform all necessary persons (see above) of the change.
- 17.3 The patient should also be made aware of the need to inform their Care Co-ordinator (or designated person) if they change any of their personal details or move to a new GP Practice.

18. RAPA (Recurring Admission Patient Alert)

- 18.1 RAPA is a system set up to inform clinicians when a patient has been admitted to a general hospital (UHP), who are taking medication that is detrimental if changed, omitted or stopped.
- 18.2 The alerts are set up on SALUS and patients on clozapine are added to the alert.
- 18.3 When a patient attends ED or a ward, the RAPA alert automatically sends an email to the generic email attached to the alert, thereby informing the relevant teams.

19. Glossary

ANC	Absolute Neutrophil Count
BMI	Body Mass Index (weight in kg / height in metres squared)
BNF	British National Formulary
CPMS	Clozapine Patient Monitoring Service – provides mandatory monitoring for patients prescribed Clozapine tablets
CYP1A2	Cytochrome P450 enzyme mainly responsible for metabolising clozapine in the liver.
DMS	Denzapine Monitoring Service – mandatory monitoring for patients prescribed clozapine suspension.
HTT	Home Treatment Team
ICP	Integrated Care Pathway
LSW	Livewell Southwest
QTc interval	The corrected QT interval in the electrocardiogram. When extended in carries a risk of ventricular arrhythmias and torsaides de pointes
SPC	Summary of Product Characteristics. Contains prescribing and safety information for each licensed drug. Produced by the drug manufacturer. Available online at medicines.org.uk
WBC	White Blood cell Count

All policies are required to be electronically signed by the Lead Director. Proof of the electronic signature is stored in the policies database.
The Lead Director approves this document and any attached appendices. For operational policies this will be the Locality Manager.
The Executive signature is subject to the understanding that the policy owner has followed the organisation process for policy Ratification.
Signed:
Date:



Appendix 1

Suggested Regimen for Clozapine Titration

CLOZAPINE ORAL TABLETS / ORAL SUSPENSION (50mg / ml)*

Week No. 1	Time	Dose	mls susp	Week No.2	Time	Dose	mls susp
Day 1	0800	12.5mg	0.25	Day 1	0800	75mg	1.5
	(Test	t dose)			2200	100mg	2.0
Day 2	0800	12.5mg	0.25	Day 2	0800	100mg	2.0
	2200	12.5mg	0.25	1	2200	100mg	2.0
Day 3	0800	25mg	0.5	Day 3	0800	100mg	2.0
	2200	25mg	0.5	1	2200	125mg	2.5
Day 4	0800	25mg	0.5	Day 4	0800	100mg	2.0
	2200	50mg	1.0	1	2200	150mg	3.0
Day 5	0800	50mg	1.0	Day 5	0800	100mg	2.0
	2200	50mg	1.0	1	2200	175mg	3.5
Day 6	0800	50mg	1.0	Day 6	0800	100mg	2.0
	2200	75mg	1.5	1	2200	200mg	4.0
Day 7	0800	50mg	1.0	Day 7	0800	100mg	2.0
	2200	100mg	2.0		2200	200mg	4.0

The prescribing clinician should decide on the target clozapine dose and amend the above titration accordingly before commencing. The titration may need to be slowed depending on side effects and patient response. Please note that if the target dose is higher than 300mg total daily dose, then subsequent increases of 50-100mg should be made weekly.

*Clozapine suspension (Denzapine®) is presented as 50mg / ml (12.5mg / 0.25ml) suspension in 100ml bottles. A 1ml and a 10ml oral syringe are provided. For doses up to and including 50mg the 1ml syringe should be used. For doses over 50mg the 10.0ml syringe should be used.

Complete the Clozapine initiation page contained within the mental health prescription chart. Send or email (emailed to livewell.clozapineservice@nhs.net) the whole of the prescription chart to LSW Pharmacy 01752 439006 (internal 39006).



Appendix 2

	IVIA	IIIICIIaiic	e Oil	JZap	ome Prescrip	tion	
Name)				Dispensing	week (pharmacy to	complete):
Address					Monitoring Frequency (please circle):		
NHS No					Weekly / 2-	weekly / 4-wee	kly
CPMS	/ DMS No				•	required (please ci	
Care Co-ordinator, or lead professional					Medidose / Venalink / No (For new patients requiring a compliance aid please contact the pharmacy clozapine team (4)39006 to discuss requirements)		
	ltant				Delivery Location	л.	
Drug al and se	llergies nsitivities:			DOS GLE	SE(S)/DRUGS CHA ENBOURNE PHAR PATIENT'S I	A NEW PRESCRIPTI ANGE. SEND PRESC MACY AND SCAN A ELECTRONIC RECO ARE VALID FOR 6 D	CRIPTION TO COPY ONTO RD.
Code	Drug Name	Tablets/ susp	Do	se	Frequency (times if compliance aid	Duration (if appropriate)	Prescriber's Initials
Α	CLOZAPINE				,		
В	CLOZAPINE						
С							
D							
E							
F							
G							
Print Nar	Prescriber's Signature						
1st Disp. Date			ate				
Disp. b	•	Disp.			Check by:	eck by: Disp. by: Check by:	
4th Disp. Date				ate		6th Disp. Date Quantity:	
Disp. b	y: Check by:	Disp.	by:	C	Check by:	Disp. by: Ch	eck by:



Team Address

CP	Practice	Δdd	race
17	PIALILLE	Au	

Dear

Re: Patient name

Date of Birth NHS Number

The above patient, who is registered with your Practice, is to be started on treatment with the antipsychotic clozapine which requires regular blood monitoring for white blood cell count and absolute neutrophil count.

Once he/she is on 4-weekly blood monitoring (minimum 12 months after starting treatment) they would find it helpful to be able to attend your GP Practice for the following:

- a. *To have regular blood samples taken: the samples will be sent directly to CPMS/DMS. Your Practice will be registered with CPMS/DMS and you will be able to order equipment and pre-paid envelopes via their websites. Your practice will need to register for payment for taking the blood samples
- b. *To collect their clozapine supplies: clozapine dispensed for the patient will be sent to your Practice from LSW Pharmacy every 4 weeks. *Delete as applicable

If the patient reverts to more frequent blood monitoring, Mental Health Services will take over responsibility for blood tests and medication until the patient is back to 4-weekly blood tests.

We are writing to request whether you would be happy to be involved in this way. We have enclosed information on clozapine, a Clozapine Agreement Form and two flow diagrams detailing the process. The current LSW Clozapine Policy can be accessed via the LSW Website.

If you are happy to be involved please would you complete the Agreement Form and return it to the address above.

The following people can be contacted if you wish to discuss this or have any concerns:

Psychiatrist	Tel.
Care Co-ordinator (or Lead Professional)	Tel.

Yours faithfully,



Information on Clozapine Blood Monitoring and Issue of Medication for GP Practice Staff

Clozapine is an atypical antipsychotic that was first introduced in the 1960's. It has been shown to be **very effective** for schizophrenia, including that unresponsive to other antipsychotics, but was withdrawn from the UK market in the 1970's following fatal cases of agranulocytosis. It was reintroduced in the late 1980's but can only be used under the following conditions:

- Prescribed only for treatment resistant schizophrenia (or psychotic disorders occurring during the course of Parkinson's disease), in cases where standard treatment has failed
- Patients must be registered with the Clozaril Patient Monitoring Service (CPMS) or, for suspension, the Denzapine® Monitoring Service (DMS).
- Patients must have regular monitoring of white blood cell count and absolute neutrophil count at designated frequencies
- Prescribers and dispensing pharmacists must be registered with CPMS/DMS (within Plymouth Area this means prescribed by psychiatrists and dispensed by LSW pharmacy – GPs will not be able to prescribe clozapine)

Mental Health Services in Plymouth are keen to make clozapine as accessible to patients as possible. For some patients allowing them to attend their GP Practice for blood tests and/or for collecting their clozapine supplies can have a positive effect on the patient's compliance with treatment.

However, there are risks to taking clozapine and it is important that GP Practice staff are aware of these risks and are willing, and adequately supported, to take on this role. With this in mind the following conditions have been imposed:

- GP Practice staff must only be involved with their prior agreement and an Agreement Form
 must be completed for each patient detailing roles and responsibilities of both GP Practice Staff
 and Mental Health Staff
- The patient should have a named Care Co-ordinator, or Lead Professional, whom the GP
 Practice can contact to discuss any concerns. Names and contact details of mental health staff
 will be included on the GP Agreement Form
- Patients will only be allowed to have their blood tests taken at the GP Practice, or collect their clozapine supplies from the Practice when they are on a 4-weekly blood schedule.
- If the patient has to revert to more frequent blood monitoring, Mental Health Services will take over responsibility for blood tests and medication until the patient is back to 4-weekly blood tests
- GP Practice Staff must follow the procedures for blood monitoring and collection of clozapine supplies (see Clozapine Policy for Mental Health Staff and GP Practice Staff)
- GP Practice staff must inform the Care Co-ordinator (or Lead Professional) if there are concerns with the patient or the patient does not collect their clozapine

The full version of the LSW "Clozapine Policy for Mental Health Staff and GP Practice Staff" is available on the Livewell Southwest Website and on LSWnet (under Policies and Procedures)



Practice Name

Address

Appendix 5

Patient Details (or use patient label)

Patient Name......
Address

Clozapine Agreement Form between Mental Health Services and GP Practice Staff

GP Practice Details

DoB		Tel No				
NHS Number		GP				
CPMS/DMS Number:		Practice Manager				
	ibilities of GP Practice Staff ee to undertake the following:					
Taking Blood Samples YES / NO Start Date	 Only when the patient is on 4 Arranging appointments w Taking blood samples in a the equipment provided Re-ordering CPMS/DMS e Alerting the Care Co-ordinattend for a blood test with 	ith the patient timely manner and sending to CPMS/DMS using equipment as needed ator (or designated person) if the patient does not in the designated time scale				
Issuing clozapine Supplies to patient YES / NO Start Date	 Only when the patient is on 4 Accepting delivery of the particle. Storing the medication in a waiting collection by the particle. Issuing each supply to the only (as stated on the pack). Alerting the Care Co-ordinal collect the clozapine supple. Returning uncollected sup (telephone first). 	patient's clozapine supplies from LSW pharmacy a secure place (preferably a locked cupboard) while atient patient for the corresponding treatment period (k) ator (or Lead Professional) if the patient does not ly during the treatment period plies to the Clozapine Pharmacy Technician				
Other responsibilities	 It is good practice to include information and appropriate 	de clozapine on the patient medication record for ealerts.				

Issuing Clozapine Supplies to the Patient

Clozapine supplies will be received in a brown bag, labelled as below:

to another GP Practice

Patient Initials & DoB
GP ADDRESS
Issue Date IF UNCOLLECTED FOR 7 DAYS CONTACT GLENBOURNE

The supply must only be issued to the patient during the time stated on the bag label. If the supply has not been collected contact Glenbourne Pharmacy as a matter of urgency. They will contact the Care Co-ordinator (or Lead Professional) who will advise on the action to be taken.

• Inform the Care Co-ordinator (or Lead professional) if the patient transfers

Patient Name	NHS Number	CPMS / DMS Number

Responsibilities of Mental Health Staff

	Responsibility
Psychiatrist	Registration of self and patient with CPMS / DMS.
	Arranging initial blood test and physical check (including ECG). Liaising with
Name	patient and GP Practice concerning any blood frequency changes. Taking
	appropriate action on red or amber blood results. Taking action on information
_	from CPMS/DMS concerning overdue blood tests.
Team	Prescribing clozapine. Prescribing any dose changes and letting relevant
Courte et un comple en	people know. Monitoring patient's mental health.
Contact number	Updating patient information with CPMS/DMS and the Clozapine Pharmacy
	Technician
Care Co-ordinator	Monitoring patient's mental health.
or Lead	Arranging blood samples and supply of clozapine to the patient during the first
Professional	12 months of treatment and any time the patient is not on 4-weekly monitoring.
Name	Liaising with GP practice to ensure patient's compliance with medication and
	arrangements for blood tests and collecting medication.
	Collecting unused clozapine supplies from patient's home and arranging return
Team	to pharmacy. Informing the Clozapine Pharmacy Technician and psychiatrist if
	the patient stops taking their medication.
Contact number	Informing the GP Practice and Clozapine Pharmacy Technician if there is a
	change of Care Co-ordinator (or Lead Professional) or psychiatrist
Clozapine	Checking blood status on CPMS/DMS. Informing Care Co-ordinator (or Lead
Pharmacy	Professional) or GP Practice if blood test is overdue or extra tests are required.
Team	Dispensing clozapine and arranging delivery to GP Practice.
	Liaising with GP practice and mental health staff.
Contact number	Arranging destruction of returned clozapine.
01752 439006	Advice and support to Mental Health Staff and GP Practice staff as required.
UHP Pharmacy	Emergency contact out of hours (evenings or weekends) for urgent clinical or
On call service	supply queries.
Contact via UHP	
switchboard.	

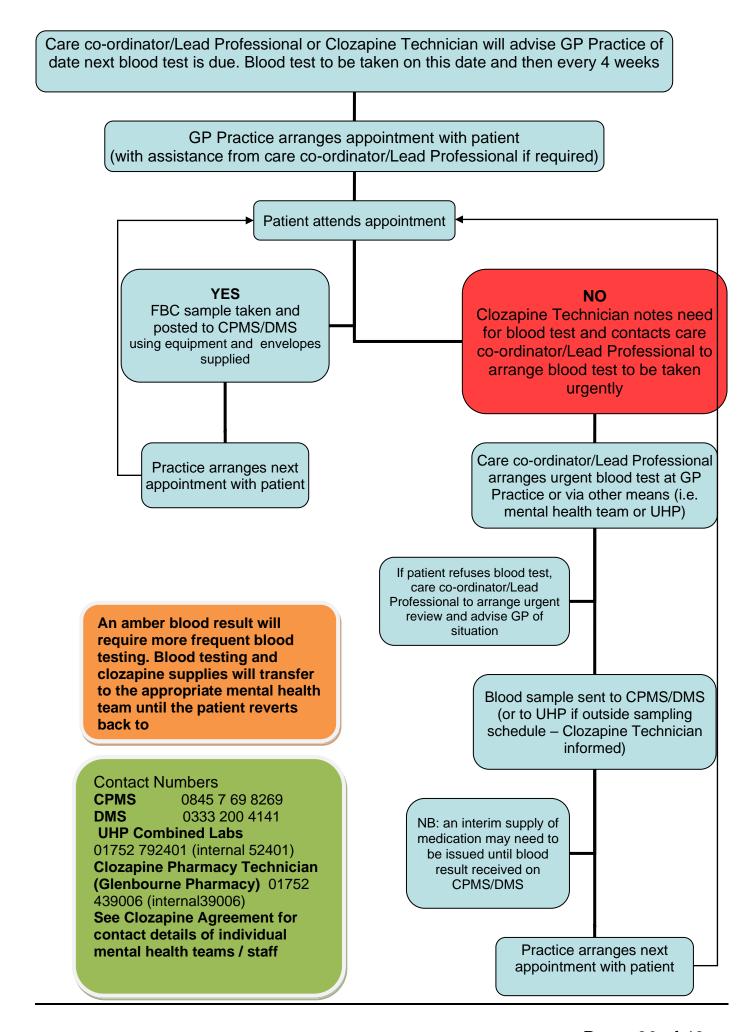
Support for GP Practice Staff

GP Practice Staff can contact any of the staff detailed above for help and advice on clozapine.

Signed on behalf o (by Clinical Governa	of GP Practice ance or Prescribing Lead)		f of Mental Health Services Care Co-ordinator)
•	Date	•	Date

Once completed, the document should be scanned onto the patient's SystmOne record. The original copy should be kept by the GP Practice and a copy emailed to the Clozapine Pharmacy Technician







Appendix 7.

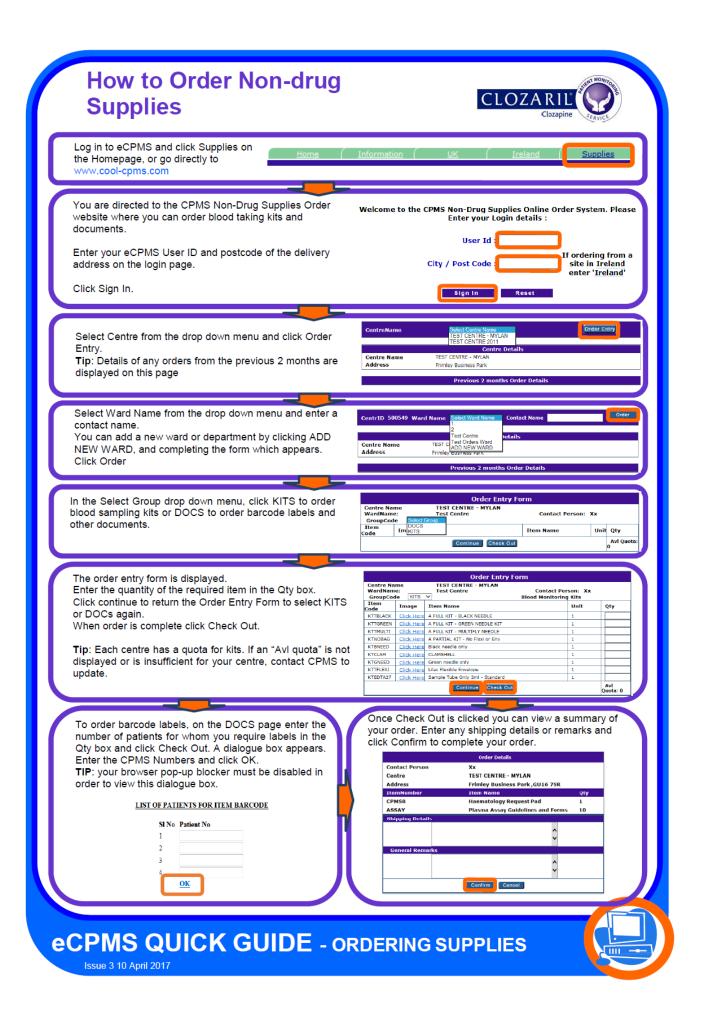
GP Clozapine supplies for patients

GP Clozapine Supplies for Patients

4-week supply of medication received at GP Practice (Thursday/Friday) Medication stored in designated safe place Patient DOES NOT collect Patient collects medication medication from practice from practice before 'collect by' before 'collect by' date on bag date on bag DO NOT issue Issue medication to medication to patient patient GP Practice contact Glenbourne Pharmacy An amber blood result [Mon-Fri 9-5 (4)39006] and care will require more co-ordinator/Lead Professional as matter of urgency frequent blood testing. Blood testing and clozapine supplies will transfer to the GP Practice will be advised to either: appropriate mental a) Issue medication to patient by an agreed time health team until the patient reverts back to b) Not issue medication but return it to Glenbourne 4-weekly blood tests Pharmacy. If medication is not to be issued the care coordinator/Lead Professional will liaise with the GP Practice and the Clozapine Pharmacy Technician over future supplies The bag of medication will be labelled: It is dangerous for a patient who Patient Initials & misses their clozapine dose for more DoB..... than 48 hours to continue on their current dose. In these circumstances GP ADDRESS the care co-ordinator/Lead Professional will contact the psychiatrist to arrange a Issue Date..... review of the patient. IF UNCOLLECTED FOR 7 DAYS CONTACT GLENBOURNE

Appendix 8.

How to order non-drug supplies from CPMS.



ICP for the Initiation of Clozapine

(See Clozapine Policy for Mental Health Staff and GP Practice Staff)

Patient's Name	GP Name:	
Date of Birth:	Telephone No:	
Address:	GP Address:	
Telephone No:	Care Co- ordinator:	
Mobile No:	Telephone No:	
NHS No:	Social Services No:	
Hospital No:	CPMS/DMS No:	

Each Section of the ICP to be completed by the Clinician who performs the relevant action. If a variance (something different from standard detailed) occurs tick the column against the statement and record in the tabbed journal on SystmOne what the variance was and the action taken.

Var = Variance

CPMS= Clozaril Patient Monitoring Service

DMS= Denzapine Monitoring Service

Ref	Interven	tions		Date / Time	Signed	Var				
1.0	Pre adm	Pre administration actions (responsibility of Consultant Psychiatrist or Deputy)								
1.1	☐ Determine that it is appropriate for Patient to take Clozapine									
		detail in Clozapine policy). Any queries or conceussed with CPMS/DMS	erns must b	e						
			nina Dalia							
		ck for contra indications (see Organisation Cloza apine/Denzapine SmPC or current edition of BN		<i>'</i> ,						
		tact CPMS/DMS if necessary	• /							
		d date when determination completed satisfac	ctorily							
1.2	☐ Phys	sical examination completed satisfactorily by the	Doctor inc	luding :-						
		Investigation	Result	Action						
			seen	req'd						
	1.2.1 Detailed medical history									
	1.2.2	ECG – essential if history of cardiac disease								
	1.2.3 LFT									
	1.2.4	TFT								
	1.2.5	U&Es								
	1.2.6	Glucose								
	1.2.7	FBC								
	1.2.8	Cholesterol								
	1.2.9	Concurrent medication list compiled								
	(including all medications)									
		completion of 1.2, consider whether complete how	spital initia	tion is						
		iired (admission for two weeks) (Admission arranged for	(Dat	۵۱						
	□ No	יייייייייייייייייייייייייייייייייייייי	\Dat	C)						

Ref	Interventions	Date / Time	Signed	Var
1.3	Decision to commence Clozapine discussed and agreed with Patient by			
	Doctor			
	☐ Informed consent obtained and recorded ☐ Check whether patient has made an advanced decision relating to			
	Clozapine.			
	☐ If Patient detained and not consenting, Second Opinion obtained			
	Patient given information leaflet about Clozapine and contents discussed with them.			
1.4	Patient agrees to:			
	Weekly blood sampling Proved decision to a minimatical write (if yet also also as investigat) OP.			
	 Day admission to an in-patient unit (if not already an inpatient) OR Mental Health staff present at their residence for at least 6 hours on 			
	the first day			
	Twice daily visits by community team for at least 2 weeks (if not an			
	inpatient during that time)			
	 Transfer to PCLT Consultant and Care Co-ordinator at the end of the initial period (usually 14 days) – if appropriate 			
1.5	□ Patient registered with CPMS/DMS			
	☐ Inform Clozapine Pharmacy Technician			
	Tel: 01752 439006			
4.0	Internal: 39006			
1.6	Consider how the Patient will continue to be monitored for the next 12 month:			
	Taking blood samples			
	Delivering medication			
	* CD Procetions will not be involved during the first 42 months			
1.7	* GP Practices will not be involved during the first 12 months Inform GP of intention to start Clozapine, for awareness of supplementary			
	prescribing			
1.8	☐ Take pre treatment blood samples (for WBC and ANC) and send to CPMS/DMS ☐ Blood sample valid for ten days			
1.9	☐ When CPMS/DMS confirm suitability and green blood count result			
	obtained, Patient may commence Clozapine. Blood sample valid for ten days			
	Green result received			
1.10	☐ If not an inpatient, patient advised to have a relative / carer to stay with			
	them overnight on day one and given relevant phone numbers to contact if any problems or if side effects arise			
1.11	□ Prescribe titrating dose of Clozapine for first 7 days			
	☐ Send /email prescription to Clozapine Pharmacy Technician email:			
	livewell.clozapineservice@nhs.net at least 24 hours before first dose is			
1.12	due Seven days of Clozapine supply received on ward / unit / team base			
	☐ Contact Clozapine Pharmacy Technician if Clozapine not received			
1.13	☐ Patient admitted to ward / unit (if applicable)			
2.0	Commencing Clozapine Day One – usually on the Ward / Unit			
2.1	The following observations are taken and agreed to be acceptable (if any			
	physical checks are abnormal, medical advice must be sought before			
	proceeding). Review current physical state /health.			
	Result			
	Blood pressure lying down Blood pressure standing			
	Pulse			
	Temperature			
2.0				
2.2	Administer first dose of Clozapine (12.5 mg)		<u> </u>	

Ref	Interven	tions				Date / Time	Signed	Var
2.3	The followard record re	wing hourly (at leas esults):						
		BP lying down	BP standing	Temp				
	1 hr							
	2 hr							
	3 hrs							
	4 hrs							
	5 hrs							
	6 hrs							
2.4	hypotension, hyperthermia and seizures. Notify Duty Doctor if there are any changes in physical observations (see Organisation Clozapine Policy) The prescriber should be informed and medical attention sought if the following are observed: • Postural drop of >30mmHg • Pulse>100bpm • Temperature>38C • Over –sedation • Other intolerable adverse effects							
	A list of adverse side effects will be kept in the patient's notes and the nurse will check on every visit whether the patient is experiencing any. Medical advice must be sought if there are any changes in physical observations or problems with side effects Sign and date ICP to acknowledge agreement to standard							
2.5	initiation	blood test taken on of Clozapine. (Rega od test taken	ardless of the day	Clozapine was				

3.0 Days 2 – 7

- Nurse monitors blood pressure, temperature and pulse and records (to monitor trends) If physical observation within normal range:-
- Administer prescribed dose of Clozapine

Check side effects

Day	Am /	BP and pulse	BP and pulse	Temp	Prescribed dose of	Side effects	Date	Time	Signed	Var
	pm	Lying	standing		Clozapine	monitored				
2	am									
2	pm									
3	am									
3	pm									
4	am									
4	pm									
5	am									
5	pm									
6	am									
6	pm									
7	am									
7	pm									

Ref	Interv	rentions					Date Tim		Sign	ed	Var
3.1	□ S liv du	rescribe titrating end / email pres rewell.clozapine: ue	cription to Cloza	pine Phar							
4.0	Days 8 - 14 Nurse monitors blood pressure, temperature and pulse and records (to monitor trends) If physical observation within normal range: Administer prescribed dose of Clozapine Check side effects										
Day	Am / pm	BP and pulse Lying	BP and pulse standing	Temp	Prescribed dose of Clozapine	Side effe monito		Date	Time	Signed	Var
8	am										
8	pm										
9	am										
9	pm										
10	am										
10	pm										
11	am										
11	pm										
12	am										
12	pm										
13	am										
13	pm										
14	am										
14	pm										

Ref	Interventions	Date / Time	Signed	Var							
5.0	Day 15 Onwards										
5.1	☐ Prescribe continuing titrating dose of Clozapine ☐ Send / email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due										
5.2	 Continue to take blood tests on the Monday or Tuesday of each week and send to CPMS/DMS 	ch									
5.3	 Review need for continued monitoring of blood pressure, temperature and pulse based on whether previous results hav been in the normal range If necessary, continue to monitor blood pressure and temperature and record on observation sheet in Patient's note 										
	Review on-going need on a regular basis (complete variance further monitoring needed)										
	 Duty Doctor notified if there are any changes in physical observations or problems with side effects 										
5.4	Sign and date ICP when first review complete and acknowled understanding of an intended adherence to standard	ge									

Ref	Interventions			Date / Time	Signed	Var
6.0	Blood Tests, Prescrip	otions and Clozapin	e Supplies			
6.1	is achieved If maintenance dose Clozapine: on the inpati units, HTT a on a Mainter Community	tor prescribes art for all inpatient escription Form for all				
6.2	for all Community Teal GP Practices. The Patient will be issue they have a satisfactor system. If the WBC is the action to be taken	ms and on a Friday for ued with further supply y current WBC on the not satisfactory, CPM				
	Prescription due on or before	Date written				
6.3		eatment. Test should	BC and ANC) for at least the taken on Monday or			
	Blood test due on or before	Date taken	Date sent to CPMS			
	Continue to monitor blo	I ood tests on a weekly	basis until advised by			
6.4	dose will need to be to be performed. The before re-starting (S	re-titrated and extra patient must have a ee ICP 8)	more than 48 hours the blood tests may need a valid blood result ontact CPMS/DMS for			
7.0	Arrangements if patic		to another Team /			

Ref	Interventions	Date / Time	Signed	Var
7.1	Pre-transfer the following actions must be completed: □ Care coordinator contacted and asked to make arrangements for the medication to be delivered to the patient on Fridays (Glenbourne pharmacy deliver Clozapine to community bases on Thursdays or Fridays). □ If GP Practice is to be involved with bloods or medication an agreement must be completed (see organisations Clozapine policy) □ Clozapine agreement between Mental Health Services and GP Practices agreed and signed by relevant bodies. □ Inform GP practice of date next blood tests due (4 weekly patients only). □ Phone CPMS/DMS and ;- ■ Complete and fax CPMS/DMS GP Sampling Venue Form. □ Phone Clozapine technician and advise of transfer of patient	Time		
	 and date Responsible doctor to ensure Clozapine prescription is up to date New Clozapine prescription faxed or emailed to Glenbourne Pharmacy as necessary. 			
7.2	Actions to be taken on day of transfer: Patient Transfer of Care form completed and faxed to CPMS/DMS. Clozapine Technician contacted to ensure they are aware of transfer. Standard discharge advice notification sent / faxed to GP Contact Care Coordinator and confirm arrangements. If GP Practice to be involved: Liaise with them and confirm arrangements are in place for next blood test			

ICP for the Re-titration of Clozapine

(See Clozapine Policy for Mental Health Staff and GP Practice Staff)

Patient's Name	GP Name:	
Date of Birth:	Telephone No:	
Address:	GP Address:	
Telephone No:	Care Co-ordinator:	
Mobile No:	Telephone No:	
NHS No:	Social Services No:	
Hospital No:	CPMS/DMS No:	

Each Section of the ICP to be completed by the Clinician who performs the relevant action. If a variance (something different from standard detailed) occurs; tick the column against the statement and record in the tabbed journal on SystmOne what the variance was and the action taken.

Var = Variance

CPMS= Clozapine Patient Monitoring Service

DMS= Denzapine Monitoring Service

Ref	Interventions	Date / Time	Signed	Var
1.0	Pre administration actions (responsibility of Consultant Psychiatrist or De			
1.1	 Determine date and time that patient last took a dose of Clozapine If the last dose of Clozapine was more than 4 weeks ago, follow the ICP for Initiation of Clozapine. 			
1.2	□ Determine that it is appropriate for Patient to re-start Clozapine □ Contact CPMS/DMS to advise of break in treatment Sign and date when determination completed satisfactorily			
1.3	Determine date of last blood test and result Date			
1.4	Patients who have had their Clozapine treatment interrupted for less than 3 days (or are still on weekly blood monitoring) can continue with their current frequency of blood monitoring providing they have a current green blood result when they re-commence Clozapine			
	Patients who have been on Clozapine for more than 18 weeks and have had their treatment interrupted for 3 days or more (but less than 4 weeks – see 1.1 above) should have their WBC count and ANC monitored weekly for an additional 6 weeks. They must have a green blood result within 7 days of recommencing Clozapine.			
	□ Determine required frequency of blood monitoring			
1.5	☐ Inform Clozapine Pharmacy Technician of treatment break			

This section is relevant if the patient has not taken Clozapine for more than one week one week	Ref	Interventions	Date / Time	Signed	Var
one week Detailed medical history completed, including all current medication Physical examination completed satisfactorily by a doctor Relevant clinical investigations Date undertaken Results approved	1.6	This section is relevant if the patient has not taken Clozapine for more than	Time		
Physical examination completed satisfactorily by a doctor Relevant clinical investigations					
Relevant clinical investigations Results approved					
Date undertaken					
FBC U&Es					
U8Es LFTs TFTs Lipid screen Blood glucose ECG (if indicated)					
LFTs					
Lipid screen Blood glucose ECG (if indicated)					
Blood glucose ECG (if indicated)		TFTs			
ECG (if indicated)		Lipid screen			
1.7 After consideration of all factors, decision taken to either: Re-commence Clozapine in the community, or Re-commence Clozapine as an inpatient Re-commence Clozapine discussed and agreed with Patient by Doctor Informed consent obtained and recorded 1.9 Patient agrees to: Either: Day admission to an in-patient unit (if not already an inpatient) then daily visits by community team for at least one week OR: For Home re-titration, a healthcare professional to visit the patient at least once a day to deliver medication and monitor the patient during the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend If GP Practice is involved with medication inform them of the break in treatment and the treatment plan If GP Practice is involved with medication inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days		Blood glucose			
Re-commence Clozapine in the community, or Re-commence Clozapine as an inpatient 1.8 Decision to re-commence Clozapine discussed and agreed with Patient by Doctor Informed consent obtained and recorded 1.9 Patient agrees to: Either: Day admission to an in-patient unit (if not already an inpatient) then daily visits by community team for at least one week OR: For Home re-titration, a healthcare professional to visit the patient at least once a day to deliver medication and monitor the patient during the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend 1.10 If GP Practice is involved with medication inform them of the break in treatment and any changes to frequency of blood tests interactive and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@ins.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine Policy , Clozarii/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure lying down Temperature		ECG (if indicated)			
Re-commence Clozapine in the community, or Re-commence Clozapine as an inpatient 1.8 Decision to re-commence Clozapine discussed and agreed with Patient by Doctor Informed consent obtained and recorded 1.9 Patient agrees to: Either: Day admission to an in-patient unit (if not already an inpatient) then daily visits by community team for at least one week OR: For Home re-titration, a healthcare professional to visit the patient at least once a day to deliver medication and monitor the patient during the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend 1.10 If GP Practice is involved with medication inform them of the break in treatment and any changes to frequency of blood tests interactive and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@ins.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine Policy , Clozarii/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure lying down Temperature	1.7	After consideration of all factors, decision taken to either:			
Re-commence Clozapine as an inpatient					
Doctor					
Informed consent obtained and recorded	1.8				
Patient agrees to: Either: Day admission to an in-patient unit (if not already an inpatient) then daily visits by community team for at least one week OR: For Home re-titration, a healthcare professional to visit the patient during the titration period OR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend If GP Practice is involved with medication inform them of the break in treatment and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11					
□ Either: Day admission to an in-patient unit (if not already an inpatient) then daily visits by community team for at least one week □ OR: For Home re-titration, a healthcare professional to visit the patient at least once a day to deliver medication and monitor the patient during the titration period □ OR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend 1.10 □ If GP Practice is involved with medication inform them of the break in treatment and the treatment plan □ If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests □ If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 □ Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient □ Send email prescription to Clozapine Pharmacy Technician email: Ilvewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 □ Seven days of Clozapine supply received on ward / unit / team base □ Con Clozapine Pharmacy Technician if Clozapine not received 1.13 □ Patient admitted to ward / unit (if applicable) 2.0 Re-commencing Clozapine Day One □ Re-check for contra indications (see Organisation Clozapine Policy, Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) □ Result Blood pressure lying down Blood pressure standing Pulse □ Temperature	1.0				
then daily visits by community team for at least one week OR: For Home re-titration, a healthcare professional to visit the patient at least once a day to deliver medication and monitor the patient during the titration period NR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend I.10 If GP Practice is involved with medication inform them of the break in treatment and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email:	1.9	· · · · · · · · · · · · · · · · · · ·			
patient at least once a day to deliver medication and monitor the patient during the titration period OR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend If GP Practice is involved with medication inform them of the break in treatment and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine not received 1.13 Patient admitted to ward / unit (if applicable) Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy, Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature					
patient during the titration period OR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend 1.10 If GP Practice is involved with medication inform them of the break in treatment and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine not received 1.13 Patient admitted to ward / unit (ff applicable) 2.0 Re-check for contra indications (see Organisation Clozapine Policy , Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature					
OR: For inpatient admission for the titration period NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend					
NB: If the patient cannot be visited in the community during a weekend, do not increase the dose over the weekend 1.10					
1.10					
treatment and the treatment plan If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine not received 1.13 Patient admitted to ward / unit (if applicable) Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy, Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature	4.40				
□ If GP Practice is involved with blood tests inform them of the break in treatment and any changes to frequency of blood tests □ If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 □ Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient □ Send email prescription to Clozapine Pharmacy Technician email:	1.10				
□ If more frequent than every 4 weeks, make arrangements for blood sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11 □ Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient □ Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 □ Seven days of Clozapine supply received on ward / unit / team base □ Con Clozapine Pharmacy Technician if Clozapine not received 1.13 □ Patient admitted to ward / unit (if applicable) 2.0 Re-commencing Clozapine Day One 2.1 □ Re-check for contra indications (see Organisation Clozapine Policy , Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature		•			
sampling and supplies to revert back to mental health services until patient is back to 4 weekly blood monitoring. 1.11					
1.11 □ Prescribe titrating dose of Clozapine for first 7 days Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient □ Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 □ Seven days of Clozapine supply received on ward / unit / team base □ Con Clozapine Pharmacy Technician if Clozapine not received 1.13 □ Patient admitted to ward / unit (if applicable) 2.0 Re-commencing Clozapine Day One 2.1 □ Re-check for contra indications (see Organisation Clozapine Policy , Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature					
1.11					
Note: start with 12.5mg once or twice on the first day but titration can then be quicker than for a new patient Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due 1.12 Seven days of Clozapine supply received on ward / unit / team base Con Clozapine Pharmacy Technician if Clozapine not received 1.13 Patient admitted to ward / unit (if applicable) 2.0 Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy , Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature	1.11				
Send email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due		Note: start with 12.5mg once or twice on the first day but titration can			
livewell.clozapineservice@nhs.net at least 24 hours before first dose is due					
due 1.12					
Con Clozapine Pharmacy Technician if Clozapine not received 1.13 Patient admitted to ward / unit (if applicable) 2.0 Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy ,					
2.0 Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy ,	1.12				
2.0 Re-commencing Clozapine Day One 2.1 Re-check for contra indications (see Organisation Clozapine Policy ,		·			
2.1 Re-check for contra indications (see Organisation Clozapine Policy ,		· · · · · /			
Clozaril/Denzapine SmPC or current addition of BNF) and current physical health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature					
health The following observations are taken and agreed to be acceptable (if any physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature	2.1				
physical checks are abnormal, medical advice must be sought before proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature		health			
proceeding) Result Blood pressure lying down Blood pressure standing Pulse Temperature					
Result Blood pressure lying down Blood pressure standing Pulse Temperature		• •			
Blood pressure standing Pulse Temperature					
Pulse Temperature					
Temperature		Blood pressure standing			
		Pulse			
2.2 Administer first dose of Clozapine (12.5 mg)		·			
	2.2	Administer first dose of Clozapine (12.5 mg)			

Ref	Interven	tions				Date / Time	Signed	Var
2.3	docto prob Agre	or. Daily observa lems with previo ed frequency of	vsical health mon ations are approp us titrations of Cl monitoring table below (if re	riate unless ozapine		ng		
		BP lying down	BP standing	Temp				
	1 hr							
	2 hr							
	3 hrs							
	4 hrs							
	5 hrs 6 hrs							
	01113							
	hypotens The pres • Po • Po • Te	ion, hypertherm	informed and mo 30mmHg					
	_	ther intolerable a	adverse effects					
2.4	Note: A list of a will check Medical a observation	ndverse side effe on every visit (advice must be s ions or problems	cts will be kept ir	if they are any change				

3.0 Days 2 – 7

- 3.1 On each day:
 - Check for side effects
 - Nurse monitors blood pressure, temperature and pulse and records (to monitor trends) If physical observation within normal range:-

Administer prescribed dose of Clozapine

Day No.	Time	Lying		Standing		Tomas	Dose of	Side effects	Data	Time	Cianad	Var
No.	Time	ВР	Pulse	ВР	Pulse	Temp	Dose of Clozapine	monitored	Date	Time	Signed	var

Interve	entions							Date / Time	Sign	ed	Var
CI	PMS/DM	IS			ng to sched	lule and sent to					
		•		•	•						
□ Send / email prescription to Clozapine Pharmacy Technician email: livewell.clozapineservice@nhs.net at least 24 hours before first dose is due □ Days 8-14											
Ch Nu ob	eck for rse mo servatio	side effec nitors bloc on within r	od press normal ra	ange:-		nd pulse and re	cords (to n	onitor tr	ends). If ph	ysical	
Time	Lying Stand			ng	Temp	Dose of Clozapine	0.000	T Da	te Time	Signed	Var
	BP	Pulse	BP	Pulse							
	o Err CF Da Pre live du Days 8 If titrat Nu ob	CPMS/DM Date taker Prescribe to Send / emalivewell.cloude Days 8-14 If titration con Check for Nurse moodservation Administer Lying	Ensure next blood te CPMS/DMS Date taken	Ensure next blood test is take CPMS/DMS Date taken	 Ensure next blood test is taken according CPMS/DMS Date taken	 Ensure next blood test is taken according to sched CPMS/DMS Date taken	 Ensure next blood test is taken according to schedule and sent to CPMS/DMS Date taken	 Ensure next blood test is taken according to schedule and sent to CPMS/DMS Date taken	Ensure next blood test is taken according to schedule and sent to CPMS/DMS Date taken	o Ensure next blood test is taken according to schedule and sent to CPMS/DMS Date taken	Ensure next blood test is taken according to schedule and sent to CPMS/DMS Date taken

Ref	Interventions			Date / Time	Signed	Var
4.2	Clozapine: • on the inpatient P	rescription Chart for	ed the doctor prescribes all inpatient units, HTT and Arion Form for all Community	os		
4.3	CPMS/DMS	d test is taken accord	ding to schedule and sent to			
5.0	Day 15 Onwards					
5.1	■ Maintenance dos	e should have been	achieved by this time			
5.2	and sent to CPMS If GP Practice is i	S/DMS nvolved with medica	ken at the necessary frequence tion or blood tests keep them tient is back on 4 weekly bloo			
6.0	Blood Tests, Prescri	ptions and Clozapi	ne Supplies			
6.2	Medication will be issue Friday The Patient will be issue have a satisfactory cuthe WBC is not satisfataken	sued with further sup errent WBC on the CI				
	Prescription due on or before	Date written	Date sent to Glenbourne Pharmacy			

Ref	Interventions	Date / Time	Signed	Var
6.4	If the Patient stops taking Clozapine for more than 48 hours the dose will need to be re-titrated again. Follow this ICP. See Organisation Clozapine Policy or contact CPMS/DMS for advice			

Organisational Appr	oval	
Board Approval	Title	Interim Medical Director
	Organisation	Livewell Southwest
	Name	Names and signatures held on the electronically signed copy
	Signature	
	Date	
Supporting Pharmacist	Title	Pharmacist
Approval	Organisation	Livewell Southwest
	Name	Names and signatures held on the electronically signed copy
	Signature	
	Date	
Supporting Consultant	Title	Consultant Psychiatrist
Psychiatrist	Organisation	Livewell Southwest
	Name	Names and signatures held on the electronically signed copy
	Signature	
	Date	
MGG Approval	Title	Interim Chief
	Organisation	Livewell Southwest
	Name	Names and signatures held on the electronically signed copy
	Signature	