

Importance of recording medicines supplied or administered by secondary/mental health care services such as Clozapine on GP clinical systems as “hospital-only”

Sharing accurate medicine detail across the health care system is essential for primary and secondary care healthcare professionals to safely and appropriately support service users accessing services. It is important that the GP patient medication section on Emis/ SystmOne records up-to-date details of medicines supplied or administered by secondary/mental health care services, particularly red-listed medicines such as clozapine, to ensure that all staff are aware of the patient's full medication history. GPs are also asked to update the National Care Record. The importance of such records has been highlighted by a recent incident related to a patient who was prescribed Clozapine and who had presented to the Emergency Department multiple times prior their death. It was noted that the patient had stopped smoking and that the cause of death was Clozapine toxicity, possibly as a result in changes to their smoking status.

Significant interactions with clozapine can alter plasma levels, including when other medicines are stopped or started. Tobacco smoking, caffeine and infection can significantly alter clozapine metabolism and require prompt referral to mental health services for a change in clozapine dose.

Smoking and Clozapine

Clozapine is significantly affected by smoking cessation because it is mainly metabolised by the CYP1A2 hepatic enzyme.^{1,2} Tobacco smoke contains polycyclic aromatic hydrocarbons that increase the activity of certain hepatic enzymes especially CYP1A2. Smokers on clozapine show up to 50% lower plasma levels, compared to non-smokers. Smoking as few as 7-12 cigarettes daily may be sufficient to cause maximum enzyme induction. Consequently, smoking cessation can cause an increase of 50-72% in clozapine levels, predisposing the patient to severe adverse effects. Plasma clozapine may rise substantially within 3-5 days of smoking cessation but enzyme activity may take weeks to return to baseline. The interaction between smoking and clozapine is unrelated to nicotine, and therefore the use of nicotine replacement therapy or e-cigarettes does not affect plasma clozapine at constant clozapine dose. It is important to consider this if a service user switches from normal cigarettes to electronic cigarettes as this will affect their clozapine levels.

What are the signs of Clozapine toxicity?

Although prescribed by specialists, all healthcare professionals who interact with service users on clozapine therapy should be [aware of the risks associated with its use](#). Harms have been reported at all stages of the service user journey and in all care settings. A failure to recognise and respond appropriately to symptoms associated with adverse effects of clozapine therapy, can lead to serious patient harm. Adverse effects include flu-like symptoms and clozapine induced constipation.

Clozapine toxicity is a medical emergency that presents with signs such as seizures, agranulocytosis, sedation, weight gain, hypersalivation, elevated liver enzyme levels, orthostatic hypotension, tachycardia, and fever, requiring immediate attention and potential discontinuation of the medication.

Action required

GP practice staff are reminded of the importance of recording “hospital medicines” in the service user’s records. They should not be entered as usual “repeat” medicines, as this may lead to inadvertent prescription issue.

To further reduce the risk of accidental issue:

- Enter a minimal quantity (e.g. 0.001 or 0)
- Mark the dose/directions as "Hospital issue only".
- Set the number of authorised issues to zero

For a step-by-step guide to recording such medicines:

- EMIS guide:

The screenshot displays the EMIS Web Health Care System interface for a patient named EMISWEB, Test (Miss), born 01-May-1987 (38y), female, with EMIS No. 500002. The patient's usual GP is TANVIR, SIMRIA (DR). The interface shows a list of current medications under the 'Current' tab. The medications listed are:

- A Adjuvanted quadrivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection
- B Adjuvanted quadrivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection
- C Adjuvanted quadrivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection
- D Adjuvanted quadrivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection
- E Adjuvanted trivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection
- F Amoxicillin 500mg capsules One To Be Taken Three Times A Day, 15 capsule
- G Cell-based quadrivalent influenza vaccine (surface antigen, inactivated) suspension for injection 0.5ml pre-filled syringes (Seqirus UK Ltd) (Personally Administered) 0.5ml, 1 pre-filled disposable injection

The interface also shows a sidebar with navigation options like 'My Record', 'All Records', and 'HPCF Care Record'. The bottom status bar indicates the user is GUGNANI, Ashwinder (Mr) at North Hyde Practice.

The 'Add a Drug' dialog box is shown, allowing the user to add a new medication. The patient details are EMISWEB, Test (Miss), born 01-May-1987 (38y), female, with EMIS No. 500002. The preferred name is Clover. The dialog box includes fields for Name, Dosage, Quantity, Duration, Rx Types, and Authorising Clinician. The 'Alert - Clozapine 25mg tablets' is selected. The 'Pack Details' section shows 'Optional Prescription Information' with Pharmacy Info (As per MH Team letter 28/05/25) and Patient Info. The 'Review Date' is set to 02-Sep-2025. The 'Days Before Next Issue' are set to Min and Max. The 'Warnings' section is expanded, showing 'High Severity Warnings (1)' and 'Medium Severity Warnings (12)'. The 'High Severity Warnings' include a 'Contra-Indication' for Clozapine with severe cardiac disorders (e.g. myocarditis). The 'Medium Severity Warnings' include a 'Drug to Drug Interaction' warning about concurrent use of two or more drugs increasing the risk of hypotension, and a 'Caution' warning about Clozapine use in severe respiratory disease. The dialog box has buttons for 'Add Another', 'Issue', 'Issue Later', and 'Cancel'.

Issue

Authoriser: EMISWEB, Test (Miss) | Medication Regime Review | Pharmacy Message | Patient Message

EMISWEB, Test (Miss) | Preferred Name: Clover | Born: 01-May-1987 (38y) | Gender: Female | EMIS No.: 500002

NHS Printed Script (non-EPS)

To Be Signed By: GUGNANI, Ash

△ Clozapine 25mg tablets Taking from secondary care, 0 tablet | Pharmacy Text - As per MH Team letter 28/05/25 | Acute Issue

Total Approximate NHS Cost: £0.00

Printer | Store | Postdate: 04-Jun-2025 | Separate Non-GP

Request | Approve and Complete | Cancel

Active | EMISWEB, Test (Miss) | Born: 01-May-1987 (38y) | Gender: Female | EMIS No.: 500002 | Usual GP: TANVIR, SIMRIA (DR)

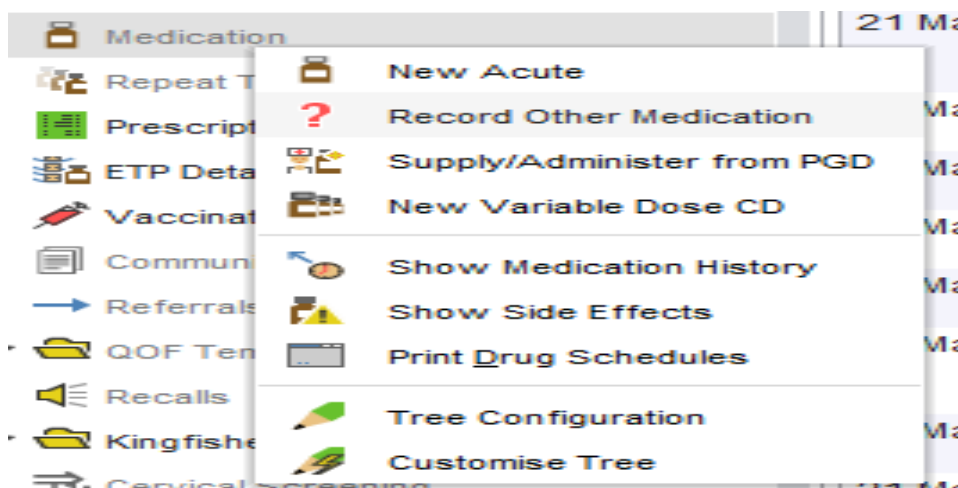
ew -> All Records

My Record | All Records | HPCF Care Record

Drug / Dosage / Quantity	Usage Current / Average	Last Issue Date / Authoriser	Last Issue Number / Method
Digoxin 62.5microgram tablets One To Be Taken Each Day, 10 tablet		TANVIR, SIMRIA (DR)	0 of 6
Empagliflozin 25mg tablets ONCE DAILY, 28 tablet		TANVIR, SIMRIA (DR)	0 of 4
Paracetamol 500mg tablets One To Be Taken Every 4-6 Hours Up To Four Times A Day, 28 tablet		TANVIR, SIMRIA (DR)	0 of 4
Variable use repeat			
Fexofenadine 120mg tablets One To Be Taken Each Day, 28 tablet		GUGNANI, Ashwinder (Mr)	0 of 4
Salbutamol 100micrograms/dose inhaler CFC free One Or Two Puffs To Be Inhaled Up To Four Times A Day, 1 x 200 dose		GUGNANI, Ashwinder (Mr)	0 of 3
Hospital			
Clozapine 25mg tablets Taking from secondary care, 0 tablet Pharmacy Text - As per MH Team letter 28/05/25		04-Jun-2025 GUGNANI, Ashwinder (Mr)	Record Hospital
Digoxin 62.5microgram tablets One To Be Taken Each Day, 7 tablet	Expected End - 19-Jun-2024	12-Jun-2024 (Calc) GAUHER, Salman (Dr)	6 of 6 (Calc) Record Hospital
Salamol 100micrograms/dose inhaler CFC free (Teva UK Ltd) One Or Two Puffs To Be Inhaled Up To Four Times A Day, 1 x 200 dose		12-Mar-2024 GUGNANI, Ashwinder (Mr)	Record Hospital
Latanoprost 50micrograms/ml / Timolol 5mg/ml eye drops One Drop To Be Used Each Morning In The Affected Eye(s), 5 ml Pharmacy Text - As per ophthalm letter 3/3/23		24-Jan-2023 GUGNANI, Ashwinder (Mr)	Record Hospital
Ibuprofen 200mg tablets One To Be Taken Three Or Four Times A Day As Necessary, 28 tablet		21-Feb-2022 GUGNANI, Ashwinder (Mr)	Record Hospital
Rivaroxaban 20mg tablets One To Be Taken Each Day, 12 tablet		21-Feb-2022 GUGNANI, Ashwinder (Mr)	Record Hospital

Summary Care Record | Jocman Share Viewer | Portal Corner New HI | Social Prescribing | GP Connect | Smartcard not inserted | TPP view

- SystmOne guide:
1. In the patient record select the medication node, right click and select "Record Other Medication"



2. Enter the drugs details (you don't have to enter dose and quantity but can do so if you have it)

Record Other Medication



Other Details... Exact date & time Fri 21 Feb 2025 15:36

Changing the consultation date will affect all other data entered. To avoid this, cancel and press the 'Next' button [Hide Warning](#)

Start date 21 Feb 2025

End date

Medication source ☐ Other Medication ☐ Dental Medication ☒ Hospital Medication

Drug   Clozaril 100mg tablets (Viatris UK Healthcare Ltd)

Dose



Quantity

Script notes

Administrative notes

Ok Ok & Another Cancel

- It will appear in the medication section

Scheduled E...	Da...	Medication Type	Flags
		Hospital	
02 Jun 2012	12	NHS medication	

- In the repeat template section right at the bottom you will see this:

[Click here to view 1 'other' medication](#)

- When you click on it you have to just drag the double line upwards to see the entry. It is a glitch in S1 that you have to do that but once you done it once it will stay there.

Other Medication [Hide This](#)

Entering hospital meds like this will ensure it is checked against interactions and appears on the National Care Record.

References:

- Stockley's Drug Interactions. Pharmaceutical Press.
- Clozapine and Smoking. Healthcare Improvement Scotland, Right Decisions for Health and Care: <https://rightdecisions.scot.nhs.uk/mypsych-app/working-in-greater-glasgow-clyde/medicines-companion/clozapine/clozapine-and-smoking/>
- What are the signs of Clozapine (Clozaril) toxicity? Dr Oracle: <https://www.droracle.ai/articles/47819/signs-of-clozapine-toxicity->