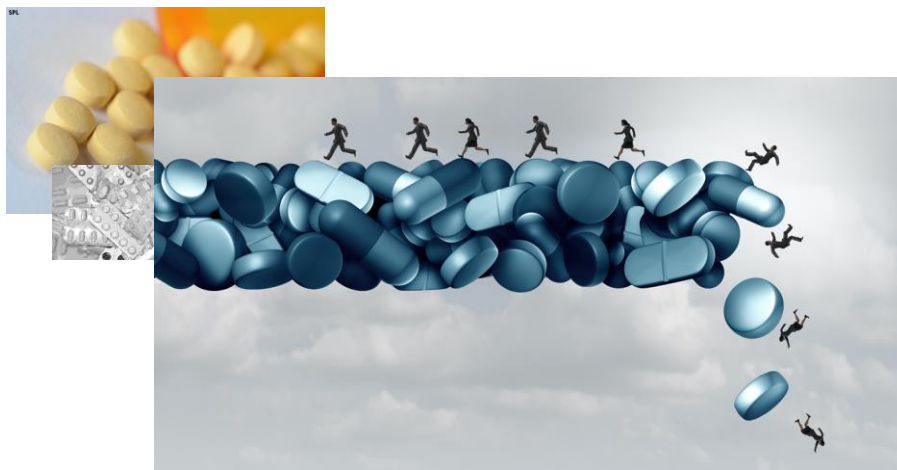


Bitesize Education and Training Session 8

Clozapine

16th July 2024



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Speaker:

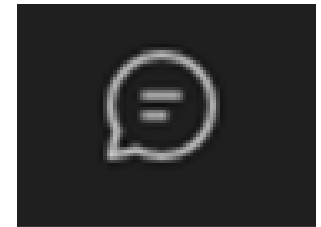
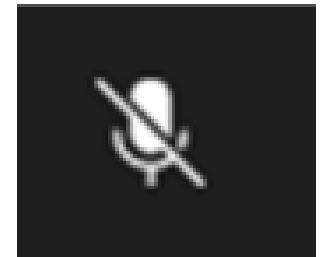
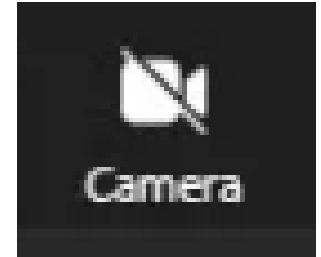
- Dorna Ghashghaei, Network Pharmacy Director, Bay Locality, Lancashire and South Cumbria NHS Foundation Trust

Welcome & Housekeeping

Thank you for joining us today!

- ✓ The session is for 30-minutes (20-minute presentation and 10-minute Q&A session).
- ✓ Please switch off your cameras and put yourselves on mute.
- ✓ Please use the chat function if you want to ask a question or for comments.
- ✓ Please respect others' views and opinions. (We have prescribers from across the system on the call – primary, secondary care and community).
- ✓ Please use the chat function to network with your peers and share ideas.
- ✓ At the end of the session there is a short feedback questionnaire – the link to access this will be put into the chat.

Please note the 20-minute presentation will be recorded, and the slides and the recording will be uploaded to the LSC Training Hub website for you to download.



Clozapine

Dorna Ghashghaei
Network Pharmacy Director
Bay Locality

Lancashire and South Cumbria NHS Foundation Trust

Clozapine- a unique medication

Developed by Sandoz in 1961.

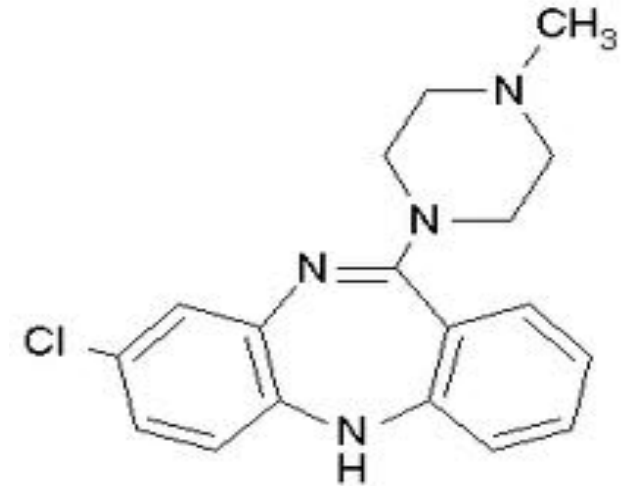
First introduced in Europe in 1971

Reintroduced after first been withdrawn from the market

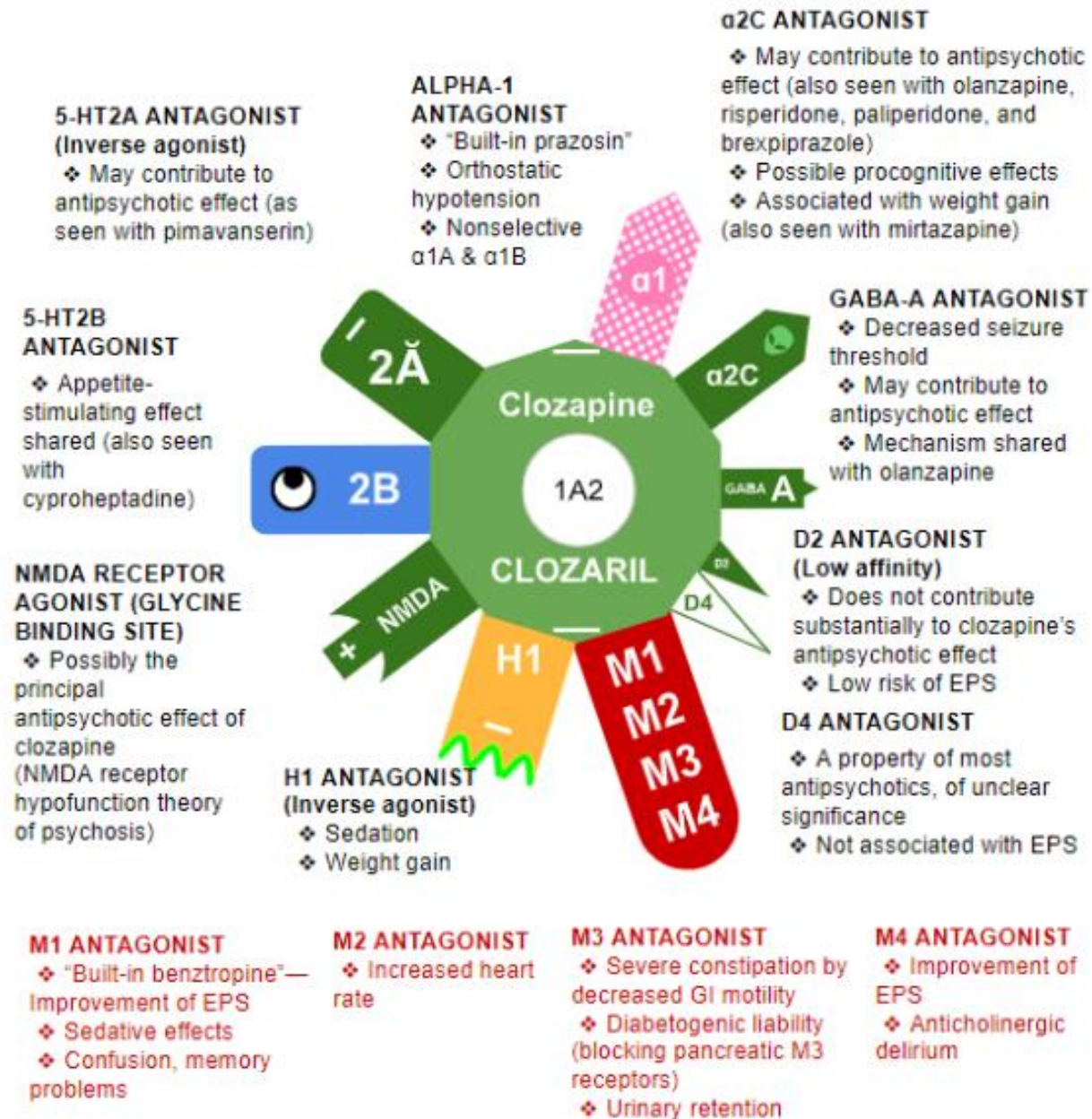
Used under strict guidance from company run monitoring schemes

More effective than other antipsychotics

It is licensed for treatment resistant schizophrenia (TRS) and unresponsive psychotic disorders in Parkinson's disease



Receptor affinity and effects



Clozapine- before starting

- Patient needs to be registered with CPMS
- Physical examination
- Mental state examination
- Baseline- FBC, lipids, weight, waist circumference, blood pressure, pulse, temperature, fasting blood glucose, ECG and HbA1c
- Assess for any movement disorders



Physical health

- After baseline tests and physical health monitoring during titration, the following should be completed at 3 months, then annually:
 - BMI and waist circumference
 - Lipid profile
 - Fasting glucose and HbA1c
 - Blood pressure
 - Pulse
 - Assessment of any movement disorder (e.g. EPSE/Parkinsonian)
 - ECG if indicated
 - Prolactin if symptomatic
-
- Raised results generally indicate worsening metabolic health and increased risk of cardiovascular disease and diabetes

CPMS

- All patients must be registered with CPMS by a CPMS registered consultant.
- Different brands of Clozapine will be under different monitoring services.
 - Denzapine – DMS
 - Zaponex – Ztas
 - Clozaril – CPMS

ii Login

CLOZARIL
Clozapine

PATIENT MONITORING SERVICE

Click one of the links below for immediate access to commonly used forms.

[Patient Registration/ Re-registration form](#) [Supervising Specialist Registration form](#) [Clozaril Website Access form](#)

Welcome to the eCPMS. Please log in:

User Id

Password [Change Password](#)

[Clozaril](#)

[Link to New Clozaril Connect Portal](#)

CPMS Contact Details :

email.cpms@mylan.co.uk

United Kingdom
Tel: 0845 769 8269
Fax: 0845 769 8379 or 8341

Ireland
Tel: (01) 662 1141
Fax: (01) 662 3961

Mylan
Seeing
is believing
Production Node-2

Blood monitoring frequency (FBC)

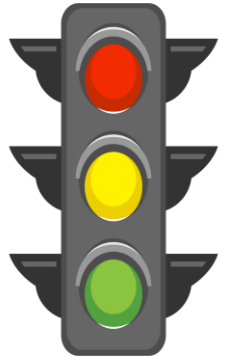
- Every week for the first 18 weeks of treatment
- Every two weeks for the rest of the first year of treatment
- Every four weeks after the first year
- And for four weeks after stopping

Clozapine

Green Result – Ok to dispense & continue with treatment

Amber result WCC <3.5 NC<2.0 – More frequent blood tests required to ensure not about to go red but can continue with treatment

Red result WCC <3 NC<1.5 - daily blood tests. If only one red result, then it is an “unconfirmed red result”



If red result is confirmed by a second sample. Treatment **MUST STOP**

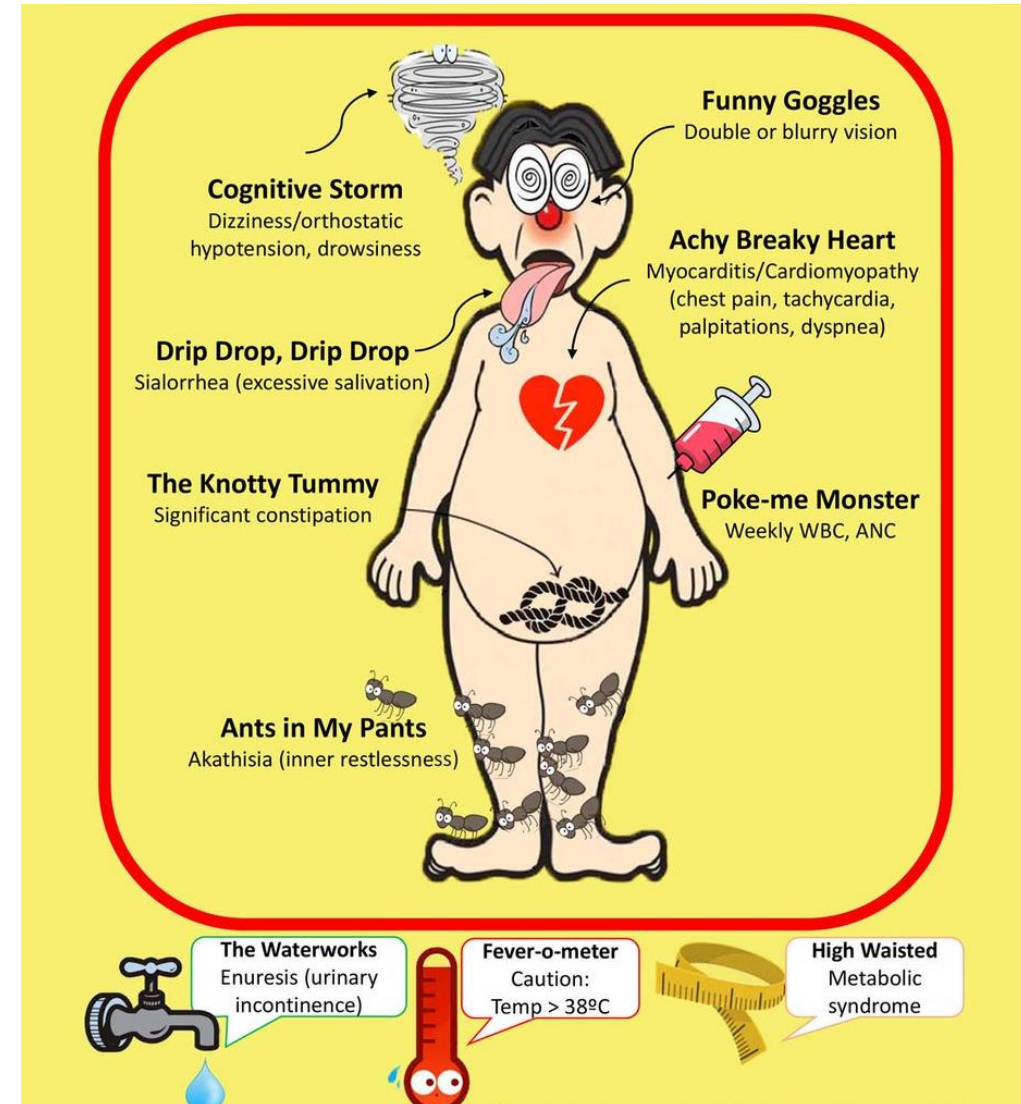


Missed doses

- Less than 48 hours – patient may continue at usual dose
- More than 48 hours – dose needs to be re-titrated, starting at 12.5mg.

Clozapine- side effects

- Constipation: can lead to bowel obstruction
- Signs of toxicity: hypersalivation, excessive sedation, hypotension, tachycardia
- Pulse: some tachycardia is normal with clozapine, omit dose of pulse >120
- BP: hypotension is common, be aware if the patient is dehydrated
- Temperature: if >38.5 then omit clozapine for 24 hours and request an FBC to rule out agranulocytosis/neutropenia



Constipation can kill. Take it seriously!

Ask to see our leaflets on clozapine and constipation








- Can't poo when you want?
 - Got hard dry stools?
 - Stomach ache?
 - Smelly wind?
 - Watery poo?
- Yes? You could be constipated

You should poo at least once every 3-4 days.
 Look at the Bristol Stool Chart below.
 If your poo is Type 1 or 2 then **you are constipated.**
 Types 6 or 7 mean you could be constipated

- How can I help myself?**
- **Make a fuss** if you get bunged up
 - Laxatives: Take every day if prescribed
 - Drink enough liquid - at least 2L a day. Your wee should be light yellow
 - Fibre: Eat at least 5 portions a day
 - Move more: Keep active
 - Go when you can: Seize the moment!

- Some medicines can cause constipation:**
- Clozapine
 - Some other antipsychotics
 - Opioids, some antidepressants

Bristol Stool Chart - Developed at University of Bristol

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

Lewis SJ, Heaton KW (1997) "Stool form scale as a useful guide to intestinal transit time". *Scand J Gastroenterol* 32 (9): 920-4

Health warning!
 Many people with constipation don't take it seriously enough.
 Clozapine can paralyse the bowel, which can be painful and fatal.
BUT it can nearly always be avoided.

- Get help in the next few days if:**
- Your stools are Bristol Stool Chart Types 1, 2, 6 or 7
 - You have not passed any stools for more than 4 days
 - Poo leaks out between bowel movements.
- Get help in the next day if you also:**
- Have bad tummy pain for over an hour
 - Have a swollen tummy
 - Are sick or have the runs.
- It could save your life**

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Clozapine Assay

- Clozapine assays give a snapshot of blood clozapine level, this can:
 - Help to optimise dose
 - Assess toxicity
 - Assess compliance
 - See impact of drug interactions/illness on clozapine
- The therapeutic dose range is accepted to be between 0.35mg/L – 0.50mg/L
 - Higher than this increased risk of adverse effects and toxicity
 - Lower than this increased likelihood of poor response
 - **HOWEVER** – all individuals differ and this should be taken into account

Factors which may increase clozapine levels

- Caffeine (Any change in the regular intake of coffee, tea, cola, chocolate or other caffeine-containing products may necessitate a Clozapine dosage alteration)
- Constipation
- Ethnicity (some ethnic groups i.e. Asian may need lower doses)
- Medication
- Older age
- Change in dose
- Smoking - Plasma levels may ↑ by up to 72% on cessation

Why do I need to know all of this?

- High risk medication – serious side effects
- Compliance is important
- Ordinarily a difficult patient cohort to engage with
- You will likely come across a patient on clozapine – you need to be aware of common side effects.
- Monitoring and Plasma levels – be aware of the requirements and what can impact the patient
- Be aware of the physical health impact and monitoring required



Lancashire &
South Cumbria
NHS Foundation Trust



Lancashire and
South Cumbria
Integrated Care Board

Thank you!

Thank you for listening

Please complete our short feedback questionnaire by clicking on the link that has been put into the chat.

Please note: all feedback will be anonymous



Next session: 20th August 2024

Paramedic Independent Prescribers –
prescribing regulations.

Speaker:

David Rovardi, from the College of
Paramedics. Specialist Medicines Advisor
for the College.

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Question and Answer



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