



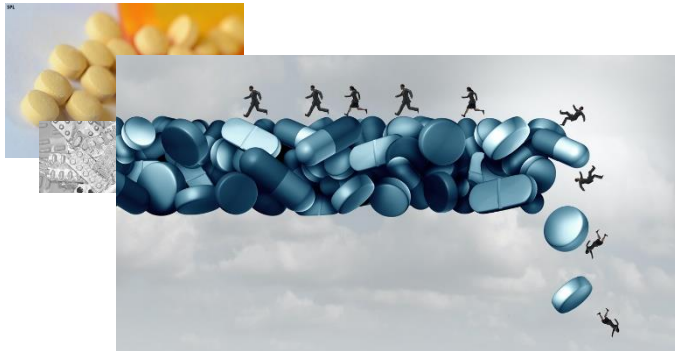
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# Bitesize Education and Training Session 12

## Part 3: Propranolol in the Treatment of Anxiety: Safer Use and Prescribing Practices

19<sup>th</sup> November 2024



### Speaker:

Vicki Jordan

Mental Health Practitioner

Independent Prescriber

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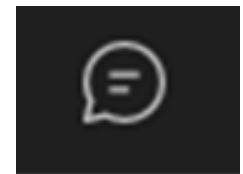
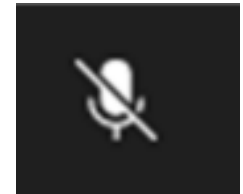
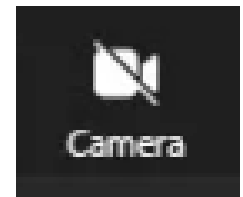
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# Welcome & Housekeeping

## 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.*



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# Propranolol Overview

Propranolol, a non-cardioselective beta-adrenergic antagonist, is increasingly recognized for its effectiveness in managing anxiety disorders, presenting both benefits and risks that must be understood by prescribers.



# Introduction to Propranolol

Propranolol has been commonly used for hypertension and cardiac issues, but its application in anxiety treatment has gained popularity. Its ability to manage physical symptoms of anxiety sets it apart from typical antidepressants, providing a unique therapeutic angle.





# Mechanism of Action

Propranolol works by blocking beta-adrenergic receptors, reducing the effects of adrenaline. This leads to a decrease in heart rate, blood pressure, and physical symptoms associated with anxiety, such as tremors and palpitations.





### •General Approach (NICE CG113):

- The first-line treatment for generalized anxiety disorder (GAD) typically involves **psychological interventions** (e.g., cognitive behavioural therapy [CBT]).
- **Pharmacotherapy** is generally considered when:
  - Anxiety symptoms are moderate to severe.
  - Psychological therapies are not accessible or suitable.

### •Pharmacological Treatment for Anxiety:

- **First-line options** for anxiety in primary care:
  - **SSRIs (Selective Serotonin Reuptake Inhibitors)**, such as sertraline, fluoxetine, and escitalopram.
  - **SNRIs (Serotonin-Norepinephrine Reuptake Inhibitors)**, such as venlafaxine.
- **Second-line options:**
  - **Pregabalin** or **bupirone** may be considered if SSRIs/SNRIs are unsuitable or ineffective.

### •Beta-blockers for Situational Anxiety:

- NICE guidelines mention **propranolol** specifically as an option for **situational anxiety** (performance anxiety, public speaking) where the physical symptoms (e.g., tremor, tachycardia) are particularly distressing.
- **Propranolol is not recommended as a first-line treatment** for generalized anxiety disorder, but it may be used as part of a broader treatment plan for anxiety, especially in specific situations.





# Uses in Anxiety Treatment

Low-dose propranolol is indicated for situational anxiety relief, particularly useful in patients with physical symptoms like tachycardia. However, it is not universally recommended for generalized anxiety disorder (GAD), as it does not address underlying psychological symptoms.





## Safety Considerations

Despite its effectiveness, propranolol poses potential risks, especially in overdose situations. Prescribers must consider individual patient histories, particularly regarding self-harm risk, before initiating treatment.





## Prescribing Trends

Propranolol has seen a significant rise in prescribing trends in primary care, indicating its growing acceptance in managing anxiety disorders.



# Propranolol Prescribing in Primary Care

Propranolol is increasingly utilized in primary care for anxiety management, reflecting a shift in prescribing practices. The data shows a considerable rise in its usage, which can be attributed to its effectiveness in treating specific anxiety symptoms such as tachycardia and tremors.





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## Demographics of Prescribing

Recent prescribing data reveals that the increase in Propranolol usage spans across various demographic groups, indicating broad acceptance. The rise in prescriptions is noted across male and female patients, with slight variations in preferences based on underlying health conditions.



# Gender and Age Analysis

Data show that the rate of Propranolol prescriptions in females is over twice that of males across all age groups. There is a notable increase in prescriptions among younger age bands, particularly where anxiety diagnoses have also risen.





# Risk Assessment and Recommendations

Effective management of propranolol prescriptions requires thorough assessment of patient risk factors and thoughtful clinical practices to minimize potential harm.





# Identifying At-Risk Groups

Individuals who may be particularly vulnerable to self-harm include young people, those experiencing mental health issues, and cultural minority groups. Moreover, neurodivergent individuals and those with a history of substance misuse are at heightened risk. A comprehensive assessment should consider demographics and past trauma when evaluating risk.





# Takeaway Messages



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- Given increasing prescriptions, lack of evidence, and significant rates of fatal overdoses, there needs to be greater awareness of the risks when prescribing propranolol for anxiety disorders. Risk of overdose should be given serious consideration before prescribing.
- NICE and BAP both recommend SSRI's as first line pharmacological options for GAD and Panic Disorder.
- There are many treatment options with a significantly better evidence base for most anxiety disorders that should be considered before propranolol i.e. talking therapies/ CBT.
- Further research is needed into whether alternative beta-blockers with a better safety profile could provide relief of somatic symptoms of anxiety.

# Practical Steps to Take Away



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1. Increase staff awareness of the risks – add to their Practice Meetings / undertake E&T with clinical staff.
2. It would be best practice when conducting a medication review/SMR to consider the indication of propranolol and if used for anxiety ensure steps are put in place to mitigate risks, and where appropriate switch a patient to a recommended medication in line with NICE guidance.
3. If patients are on propranolol for anxiety, then the risk of overdose should be given serious consideration and limit prescription to maximum 2-week supply. Ensuring these patients are followed up and are made aware of the harms of propranolol in overdose and the steps they should take in cases of purposeful or accidental overdose.
4. Ensure patients are regularly reviewed.
5. If discontinuing propranolol, cautiously reduce the dose being mindful of withdrawal symptoms and encourage patients to safely dispose of any propranolol tablets if they are no longer required.
6. Consider as a practice whether to carry out a safety piece of audit work – creating a search, looking at the indication, reviews, quantities of medication and self-harm risks.



## References

- NICE. Generalised anxiety disorder and panic disorder in adults: management | Guidance and guidelines |. NICE clinical guideline 113 [guidance.nice.org.uk/cg113](https://www.nice.org.uk/cg113). 2011;(113).
- Phelan, R., Cottrell, A., Gee, S. and Rifkin, L. (2024). Propranolol in anxiety: poor evidence for efficacy and toxicity in overdose. *British Journal of General Practice*, 74(748), pp.516–519. doi:<https://doi.org/10.3399/bjgp24x739881>.
- RDTC. (2024). Safer Medication Use - Propranolol in the treatment of anxiety - RDTC. [online] Available at: <https://rdtc.nhs.uk/prescribing-support-document/safer-medication-use-propranolol-in-the-treatment-of-anxiety/> [Accessed 18 Nov. 2024].



# Question and Answer



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# Thank you for listening



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**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*



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# 2025 Timetable



- We will be continuing our lunchtime E&T sessions in 2025.
- Every third Tuesday of the month between 12noon-12.30pm.
- MS Teams invite will be sent out in December.

## 2025 Lunchtime Education and Training Sessions for Clinical Staff

Occur every third Tuesday of the month via Microsoft Teams at 12noon-12.30pm

Microsoft Teams joining link: **INSERT JOINING LINK**

Date	Topic	Speaker(s)
21 <sup>st</sup> January 2025	Antimicrobial Resistance	Kate Ward and Suzanne Penrose (Medicines Optimisation Pharmacists)
18 <sup>th</sup> February 2025	Role and benefits of Occupational Therapists	Alison McCracken (Clinical Research Therapist - University Hospitals of Morecambe Bay NHS Foundation Trust)
18 <sup>th</sup> March 2025	Dementia	Danielle Calvert (Advanced Clinical Practitioner and Non-Medical Prescriber at Memory Assessment Services)
15 <sup>th</sup> April 2025	Key considerations when prescribing in Learning Disability	Abhinav <u>Kokilagadda</u> ( <i>Abhi</i> ), Specialist Physiotherapist in LD, Pennine Care. And Specialist Clinical Advisor (PCCA) Learning Disability & Autism in L&SC Training Hub
20 <sup>th</sup> May 2025	Asthma management	Sanjay Tanna (Senior Pharmacist -The Thornton Practice And Pharmacist Clinical Advisor LSC Training Hub)
17 <sup>th</sup> June 2025	COPD management	Sanjay Tanna (Senior Pharmacist -The Thornton Practice And Pharmacist Clinical Advisor LSC Training Hub)
15 <sup>th</sup> July 2025	Deprescribing in Frailty	
19 <sup>th</sup> August 2025	RPS A Competency Framework for all Prescribers overview	JS Organising with RPS
16 <sup>th</sup> September 2025	Anticoagulants	
21 <sup>st</sup> October 2025	Clinical Documentation	JS Organising with RPS
18 <sup>th</sup> November 2025	Opioid/Pain Management	Sanjay Tanna (Senior Pharmacist -The Thornton Practice And Pharmacist Clinical Advisor LSC Training Hub)