

Interactions between Lamotrigine and Contraceptives Interaction (Communication Practises)

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Introduction

- Lamotrigine is used for epilepsy and mental health disorders but can interact with contraceptives, affecting efficacy and safety.
- NICE recommends it for bipolar depression, relapse prevention and recurrent depression. Interactions with hormonal contraceptives can influence effectiveness of either drug and increase the risk of side effects.
- Patients on Lamotrigine should be counselled so they can make an informed decision about taking the medication.

Aims and Hypothesis

- The aim of this audit was to assess communication practices regarding interactions between Lamotrigine and oral contraceptives in the North West Sussex Specialist Perinatal Mental Health Services .
- The predicted outcome included increasing awareness about potential interaction between lamotrigine and contraceptives with resulting impact on patient safety

Background

- Uses of lamotrigine, mechanism of action, mechanism of interaction with POPs and COCs .
- Lamotrigine is an anti seizure medication whose mechanism of action is not entirely understood. It is a triazine, and research has shown that lamotrigine selectively binds and inhibits voltage-gated sodium channels, stabilizing presynaptic neuronal membranes and inhibiting presynaptic glutamate and aspartate release. (2)
- It is possible that lamotrigine could reduce the efficacy of combined hormonal contraceptives, therefore the additional reliable use of condoms is recommended. However, combined hormonal contraceptives can decrease lamotrigine concentrations, which might result in reduced efficacy (e.g. seizure control). If combined hormonal contraceptive use is unavoidable, consider increasing the lamotrigine dose and monitoring lamotrigine concentrations. A continuous combined hormonal contraceptive regimen (with no hormone-free interval) could be used to avoid cyclical changes in lamotrigine concentrations [unlicensed use]. 1)



- Lamotrigine's efficacy might also be reduced by use of combined oral contraceptives so even if barrier methods are being used to prevent the risk of unplanned pregnancies, there might be need to up titrate the lamotrigine to a dose that is adequate for symptom control for either the mood symptoms or seizure control depending on the indication
- Lamotrigine rarely causes Steven Johnson's syndrome and most prescribers are aware of this and regularly inform patients to be aware of a potential rash. This is also often documented. However the potential interaction with hormonal contraceptives is not as widely known
- Unwanted pregnancies can negatively impact a woman's mental health and pregnancy itself is a high risk for mental health deterioration. It is important that women are given all the information required to make informed decisions about their care

Methods

- We reviewed records of all patient on the caseload on 21st June 2023.
- We collected data for lamotrigine prescription, indication, contraceptive method, and documented counselling.
- We calculated percentage of patients counselled on lamotrigine-contraceptive interaction that had this documented.
- We used simple mathematics to come up with the various percentages shown in the graphs.

Results

- In the 261 patient records, 11.9% were previously or currently on lamotrigine or had a discussion about starting Lamotrigine. 6.1% currently and 3.1% previously on Lamotrigine.
- Counselling on lamotrigine's interaction with oral contraceptives was documented with 3.1% , while 74.2% received none.
- Indications for lamotrigine use were epilepsy 9.7% and mood stabiliser 90.3%.
- Of 27 patients who weren't currently pregnant, 9 of them were informed of the interaction risk while 18 were not.
- Contraception methods were documented for 10 individuals. gave positive qualitative feedback about their experience and the treatment.



Conclusions

- Findings showed the need for increased awareness about the interaction and documentation of appropriate discussions to inform their choice.
- A greater percentage of patients on Lamotrigine did not have documentation to show that counselling about the potential interaction with oral contraceptives. Given that they are under our team due to struggling with their mental health in the perinatal period, it is important that we take routinely do this in our practise as falling pregnant unintentionally might have further negative effects on their mental health
- The majority of patients on Lamotrigine on our caseload are on it as a mood stabiliser which is an off license indication however anecdotal evidence shows that it is useful. Further studies need to be done to find out how many of those patients on it find that it aids in their symptoms.

References

- <https://bnf.nice.org.uk/treatment-summaries/contraceptives-interactions/>
- <https://www.ncbi.nlm.nih.gov/books/NBK470442/#:~:text=The%20mechanism%20of%20action%20for,presynaptic%20glutamate%20and%20aspartate%20release.>