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BREAKING NEW GROUND: Could Calcitonin Gene-Related Peptide Inhibitors prevent Status Epilepticus?

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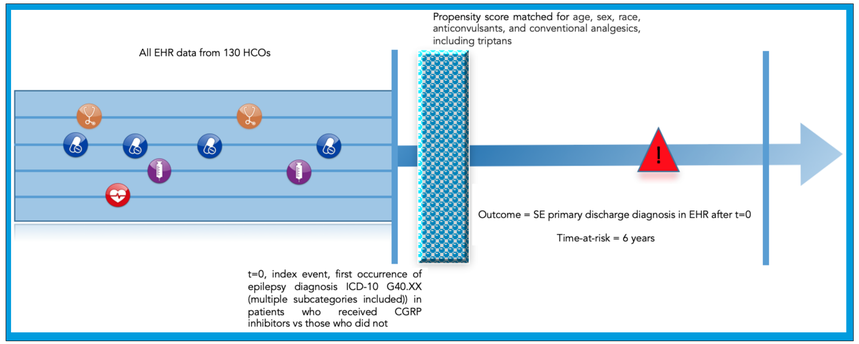
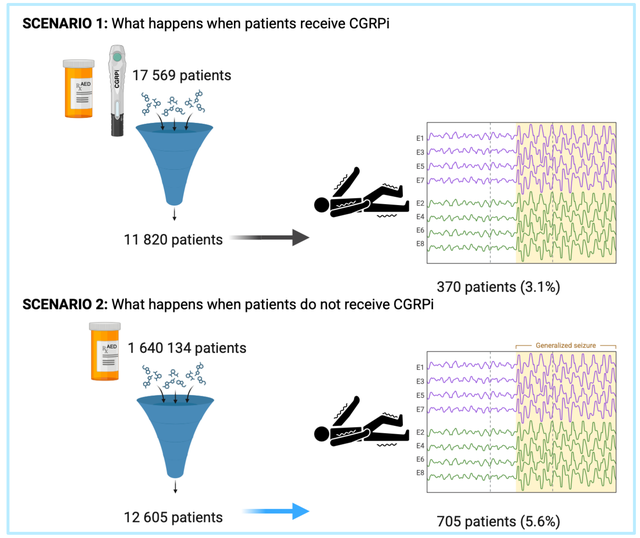
INTRODUCTION

- Calcitonin gene-related peptide (CGRP) inhibitors are crucial in regulating pain and neuroinflammation, which is implicated in ictogenesis[1,2,3].
- This study presents preliminary data from electronic health records, comparing the occurrence of status epilepticus (SE) among epilepsy patients who received CGRP inhibitors versus those who did not.

METHODS



RESULTS



Mean age: 47

Risk Difference: -2.46%, $p < .0001$, 95% CI [-2.97%, -1.95%]

Risk Ratio: 0.56, 95% CI [0.50, 0.63]

Odds Ratio: 0.54, 95% CI [0.48, 0.62]

Hospital visits due to SE: $t = -5.37$, $df = 24{,}423$, $p < .0001$

DISCUSSION

- Neuroinflammation, a common denominator implicated in epilepsy and migraine, has been reported as a cause of neuronal hyperexcitability, which can precipitate seizures[1,2]. In SE, there is a breakdown in inhibitory pathways as neuronal dysfunction ensues secondary to overwhelming excitotoxicity. Our findings suggest prescribing CGRP inhibitors for migraine in patients with concurrent epilepsy as this could have unintended benefits, such as decreasing admission for status epilepticus.
- Causality cannot be established based on our findings, which need to be confirmed in prospective cohorts and randomized control trials

CONCLUSIONS

In this retrospective analysis of data from electronic health records of a large sample of patients, CGRP inhibitors were associated with a lower occurrence and hospital visits for Status Epilepticus.

REFERENCES

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